

EXHIBIT 1

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

RONALD A. KATZ TECHNOLOGY
LICENSING, L.P.,

Plaintiff,

v.

COMCAST CORPORATION; COMCAST CABLE
COMMUNICATIONS, LLC; COMCAST OF NEW
CASTLE COUNTY, LLC; COMCAST OF
DELMARVA, INC.; COMCAST OF EASTERN
SHORE, LLC; COMCAST OF CALIFORNIA II,
LLC; COMCAST OF CALIFORNIA/COLORADO,
LLC; COMCAST OF ARKANSAS/FLORIDA/
LOUISIANA/MINNESOTA/MISSISSIPPI/
TENNESSEE, INC.; COMCAST OF COLORADO/
PENNSYLVANIA/WEST VIRGINIA, LLC;
COMCAST OF FLORIDA/ILLINOIS/MICHIGAN,
INC.; COMCAST OF GARDEN STATE, L.P.;
COMCAST OF HOUSTON, LLC; GEICO
CORPORATION; GOVERNMENT EMPLOYEES
INSURANCE COMPANY; GEICO GENERAL
INSURANCE COMPANY; GEICO INDEMNITY
COMPANY; GEICO CASUALTY COMPANY; XM
SATELLITE RADIO HOLDINGS INC.; XM
SATELLITE RADIO, INC.; XM RADIO, INC.; XM
EQUIPMENT LEASING, LLC;

Defendants.

C.A. No. 07cv361 (GMS)

DEMAND FOR JURY TRIAL

**PLAINTIFF RONALD A. KATZ TECHNOLOGY LICENSING, L.P.'S
AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Ronald A. Katz Technology Licensing, L.P. ("Katz Technology Licensing"), states as follows for its amended complaint against Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/

Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of Garden State, L.P., Comcast of Houston, LLC, GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company, XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC:

THE PARTIES

1. Plaintiff Katz Technology Licensing is a California limited partnership with its principal place of business at 9220 Sunset Boulevard, Suite 315, Los Angeles, California 90069.

2. On information and belief, Defendant Comcast Corp. is a Pennsylvania corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102.

3. On information and belief, Defendant Comcast Cable Communications, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

4. On information and belief, Defendant Comcast of New Castle County, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102 and (b) a subsidiary of Comcast Corp.

5. On information and belief, Defendant Comcast of Delmarva, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

6. On information and belief, Defendant Comcast of Eastern Shore, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

7. On information and belief, Defendant Comcast of California II, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

8. On information and belief, Defendant Comcast of California/Colorado, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

9. On information and belief, Defendant Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

10. On information and belief, Defendant Comcast of Colorado/Pennsylvania/ West Virginia, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

11. On information and belief, Defendant Comcast of Florida/Illinois/ Michigan, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

12. On information and belief, Defendant Comcast of Garden State, L.P. is (a) a partnership organized under the laws of the State of Delaware with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

13. On information and belief, Defendant Comcast of Houston, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

14. On information and belief, Defendant GEICO Corporation is a Delaware corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076.

15. On information and belief, Defendant Government Employees Insurance Company is (a) a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

16. On information and belief, Defendant GEICO General Insurance Company is an Iowa corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

17. On information and belief, Defendant GEICO Indemnity Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

18. On information and belief, Defendant GEICO Casualty Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation. On information and belief, Defendant XM Satellite Radio Holdings, Inc., is a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002.

19. On information and belief, Defendant XM Satellite Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

20. On information and belief, Defendant XM Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

21. On information and belief, Defendant XM Equipment Leasing, LLC is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

JURISDICTION AND VENUE

22. This is an action arising under the patent laws of the United States, 35 U.S.C. sections 101 *et seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. sections 1331 and 1338(a).

23. Defendants Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of

Garden State, L.P., Comcast of Houston, LLC, (collectively, the “Comcast Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are organized under the laws of the State of Delaware and have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

24. Defendants GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company (collectively, the “GEICO” Defendants) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are Delaware corporations and/or have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

25. Defendants XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC (collectively, the “XM Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, they are Delaware corporations and have designated a registered agent in this district.

26. Venue is proper in this judicial district under 28 U.S.C. sections 1391(c) and 1400(b) because the Defendants are incorporated, reside, have designated a registered agent in, and/or engage in significant business activities in this district as set forth in Paragraphs 23-25 above.

BACKGROUND

27. Ronald A. Katz (“Mr. Katz”), founder of Katz Technology Licensing, is the sole inventor of each of the patents-in-suit. Mr. Katz has been widely recognized as one of the most

prolific and successful inventors of our time, and his inventions over the last forty-plus years have been utilized by literally millions of people.

28. In 1961, Mr. Katz co-founded Telecredit Inc. ("Telecredit"), the first company to provide online, real-time credit authorization, allowing merchants to verify checks over the telephone. Further innovations from Telecredit include the first online, real-time, point-of-sale credit verification terminal, which enabled merchants to verify checks without requiring the assistance of a live operator, and the first device that used and updated magnetically-encoded cards in automated teller machines. Multiple patents issued from these innovations, including patents co-invented by Mr. Katz.

29. Telecredit was eventually acquired by Equifax, and has now been spun off as Certegy, a public company traded on the New York Stock Exchange. Certegy continues to provide services in the credit and check verification field established by Mr. Katz and Telecredit.

30. Mr. Katz's inventions have not been limited to telephonic check verification. Indeed, Mr. Katz is responsible for advancements in many fields of technology. Among his most prominent and well-known innovations are those in the field of interactive call processing. Mr. Katz's inventions in that field are directed to the integration of telephonic systems with computer databases and live operator call centers to provide interactive call processing services.

31. The first of Mr. Katz's interactive call processing patents issued on December 20, 1988. More than fifty U.S. patents have issued to Mr. Katz for his inventions in the interactive call-processing field, including each of the patents-in-suit.

32. In 1988, Mr. Katz partnered with American Express to establish FDR Interactive Technologies, later renamed Call Interactive, to provide interactive call processing services based on Mr. Katz's inventions. The American Express business unit involved in this joint venture later became known as First Data.

33. Early clients of Call Interactive included *The New York Times*, ABC's *Monday Night Football*, KABC Radio, CBS News, and Beatrice Foods (Hunt-Wesson division).

34. Many of these clients utilized Call Interactive technology for high-profile events. For example, CBS News hired Call Interactive to operate an interactive, real-time telephone poll to gauge viewer reaction to President George H.W. Bush's 1992 State of the Union address.

35. Mr. Katz sold his interest in Call Interactive to American Express in 1989 but continued to provide advisory services to Call Interactive until 1992. American Express later spun off the First Data business unit into a separate corporation, and with that new entity went Mr. Katz's interactive call processing patents and the Call Interactive call processing business. The former Call Interactive, now known as First Data Voice Services, continues to provide call processing solutions today.

36. In 1994, Mr. Katz formed Katz Technology Licensing, which acquired the rights to the entire interactive call processing patent portfolio, including the rights to each of the patents-in-suit, from First Data, the owner of all of the Katz interactive call processing patents at that time.

37. The marketplace has clearly recognized the value of Mr. Katz's inventions. Indeed, over one hundred fifty companies have licensed the patents-in-suit. Licensees include IBM, Hewlett-Packard, Bank of America, JPMorgan Chase, Wells Fargo, HSBC, Verizon, Sprint, Microsoft, Delta Airlines, Merck, Sears, Citibank, and the Home Shopping Network. These licensees and others acknowledge the applicability of the patents-in-suit to multiple fields of use, including but not limited to financial services call processing, automated securities transactions, automated credit card authorization services, automated wireless telecommunication services and support, automated health care services, and product and service support.

38. Each of the defendants employs the inventions of certain of the patents-in-suit. Katz Technology Licensing, through its licensing arm A2D, L.P., has repeatedly attempted to engage each defendant in licensing negotiations, but to date, none of the defendants has agreed to take a license to any of the patents-in-suit.

THE ASSERTED PATENTS

39. On December 20, 1988, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,792,968 (the “‘968 Patent”) to Ronald A. Katz for an invention entitled “Statistical Analysis System for Use With Public Communication Facility.” The ‘968 Patent expired on December 20, 2005.

40. On May 29, 1990, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,930,150 (the “‘150 Patent”) to Ronald A. Katz for an invention entitled “Telephonic Interface Control System.” The ‘150 Patent expired on December 20, 2005.

41. On July 7, 1992, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,128,984 (the “‘984 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

42. On October 5, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,251,252 (the “‘252 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

43. On October 19, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,255,309 (the “‘309 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘309 Patent expired on December 20, 2005.

44. On September 27, 1994, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,351,285 (the “‘285 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘285 Patent expired on December 20, 2005.

45. On October 1, 1996, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,561,707 (the “‘707 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘707 Patent expired on December 20, 2005.

46. On November 4, 1997, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,684,863 (the “‘863 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘863 Patent expired on December 20, 2005.

47. On September 29, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,815,551 (the “‘551 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘551 Patent expired on December 20, 2005.

48. On October 27, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,828,734 (the “‘734 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

49. On November 10, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,835,576 (the “‘576 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Lottery Device.” The ‘576 Patent expired on July 10, 2005.

50. On April 27, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,898,762 (the “‘762 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘762 Patent expired on December 20, 2005.

51. On June 29, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,917,893 (the “‘893 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘893 Patent expired on December 20, 2005.

52. On October 26, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,974,120 (the “‘120 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

53. On March 7, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,035,021 (the "'021 Patent") to Ronald A. Katz for an invention entitled "Telephonic-Interface Statistical Analysis System." The '021 Patent expired on December 20, 2005.

54. On November 14, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,148,065 (the "'065 Patent") to Ronald A. Katz for an invention entitled "Telephonic-Interface Statistical Analysis System." The '065 Patent expired on July 10, 2005.

55. On September 18, 2001, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,292,547 (the "'547 Patent") to Ronald A. Katz for an invention entitled "Telephonic-Interface Statistical Analysis System." The '547 Patent expired on July 10, 2005.

56. On January 1, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,335,965 (the "'965 Patent") to Ronald A. Katz for an invention entitled "Voice-Data Telephonic Interface Control System." The '965 Patent expired on December 20, 2005.

57. On February 19, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,349,134 (the "'134 Patent") to Ronald A. Katz for an invention entitled "Telephonic-Interface Statistical Analysis System." The '134 Patent expired on December 20, 2005.

58. On July 23, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,424,703 (the "'703 Patent") to Ronald A. Katz for an invention entitled "Telephonic-Interface Lottery System." The '703 Patent expired on July 10, 2005.

59. On August 13, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,434,223 (the "'223 Patent") to Ronald A. Katz for an invention entitled "Telephone Interface Call Processing System With Call Selectivity." The '223 Patent expired on July 10, 2005.

60. On January 28, 2003, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,512,415 (the “‘415 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Game Control System.” The ‘415 Patent expired on July 10, 2005.

61. On January 13, 2004, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,678,360 (the “‘360 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘360 Patent expired on July 10, 2005.

FIRST CLAIM
(Patent Infringement by the Comcast Defendants)

62. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

63. The Comcast Defendants provide digital cable, broadband Internet and digital phone services to subscribers throughout the United States.

64. On information and belief, the Comcast Defendants use infringing call processing systems to offer automated customer service, pay-per-view ordering, voicemail functions, and technical support to their customers. Using an automated system, in some instances in connection with operators, the Comcast Defendants allow their customers to access information about their accounts, access voicemail messages, make payments, transfer or discontinue service, order pay-per-view entertainment, and perform various other functions.

65. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the ‘021, ‘065, ‘120, ‘134, ‘150, ‘223, ‘252, ‘285, ‘309, ‘360, ‘415, ‘547, ‘551, ‘703, ‘707, ‘734, ‘762, ‘863, ‘893, ‘968, and ‘984 Patents.

66. On information and belief, in their automated operations described in Paragraph 64 (collectively, the “Accused Comcast Services”), the Comcast Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one

or more claims of the patents identified in Paragraph 65 of this Complaint by making, using, offering to sell, or selling the Accused Comcast Services.

67. On information and belief, the Comcast Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the '120, '252, '734, and '984 Patents by making, using, offering to sell, or selling the Accused Comcast Services.

68. The Comcast Defendants' infringement of the patents identified in Paragraph 65 of this Complaint has been and is willful.

69. The Comcast Defendants' infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

SECOND CLAIM
(Patent Infringement by the GEICO Defendants)

70. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

71. The GEICO Defendants provide insurance products and services throughout the United States.

72. On information and belief, the GEICO Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the GEICO Defendants allow their customers to access information about their policies, make payments, order new identification cards, establish or change their personal identification numbers, verify insurance coverage, and perform various other functions.

73. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the '065, '120, '134, '150, '223, '252, '285, '360, '547, '551, '576, '703, '707, '734, '863, '893, '965, '968 and '984 Patents.

74. On information and belief, in their automated customer service operations described in Paragraph 72 (collectively, the “Accused GEICO Services”), the GEICO Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph 73 of this Complaint by making, using, offering to sell, or selling the Accused GEICO Services.

75. On information and belief, the GEICO Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the ‘120, ‘252, ‘734 and ‘984 Patents by making, using, offering to sell, or selling the Accused GEICO Services.

76. The GEICO Defendants’ infringement of the patents identified in Paragraph 73 of this Complaint has been and is willful.

77. The GEICO Defendants’ infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

THIRD CLAIM
(Patent Infringement by the XM Defendants)

78. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

79. The XM Defendants provide satellite radio subscription services.

80. On information and belief, the XM Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the XM Defendants allow their customers to access account information, sign up for new service, activate a radio, send a radio activation signal, make a payment for an account, manage an account, access technical support, and perform various other functions.

81. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the '065, '120, '134, '150, '223, '252, '285, '360, '551, '703, '707, '734, '762, '863, '893, '965, and '984 Patents.

82. On information and belief, in their automated customer service operations described in Paragraph 80 (collectively, the "Accused XM Services"), the XM Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph 81 of this Complaint by making, using, offering to sell, or selling the Accused XM Services.

83. On information and belief, the XM Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the '120, '252, '734 and '984 Patents by making, using, offering to sell, or selling the Accused XM Services.

84. The XM Defendants' infringement of the patents identified in Paragraph 81 of this Complaint has been and is willful.

85. The XM Defendants' infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Ronald A. Katz Technology Licensing, L.P., respectfully requests that this Court enter judgment in its favor and against the defendants and grant the following relief:

1. Adjudge that the Comcast Defendants have been and are infringing one or more claims of the patents identified in Paragraph 65 of this Complaint by offering the Accused Comcast Services;

2. Adjudge that the Comcast Defendants' infringement has been and is willful;

3. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the Comcast Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

4. Order an accounting for damages resulting from the Comcast Defendants' infringement of the patents identified in Paragraph 65 of this Complaint.

5. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the Comcast Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

6. Enter an order, pursuant to 35 U.S.C. § 284, and based on the Comcast Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the Comcast Defendants;

7. Adjudge that the GEICO Defendants have been and are infringing one or more claims of the patents identified in Paragraph 73 of this Complaint by offering the Accused GEICO Services;

8. Adjudge that the GEICO Defendants' infringement has been and is willful;

9. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the GEICO Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734 and '984 Patents;

10. Order an accounting for damages resulting from the GEICO Defendants' infringement of the patents identified in Paragraph 73 of this Complaint;

11. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the GEICO

Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

12. Enter an order, pursuant to 35 U.S.C. § 284, and based on the GEICO Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the GEICO Defendants;

13. Adjudge that the XM Defendants have been and are infringing one or more claims of the patents identified in Paragraph 81 of this Complaint by offering the Accused XM Services;

14. Adjudge that the XM Defendants' infringement has been and is willful;

15. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the XM Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

16. Order an accounting for damages resulting from the XM Defendants' infringement of the patents identified in Paragraph 81 of this Complaint;

17. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the XM Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

18. Enter an order, pursuant to 35 U.S.C. § 284, and based on the XM Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the XM Defendants;

19. Enter an order, pursuant to 35 U.S.C. § 285, finding that this is an exceptional case and awarding to Katz Technology Licensing its reasonable attorneys' fees incurred in this action; and


20. Award such other relief as the Court may deem appropriate and just under the circumstances.

JURY DEMAND

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and the Seventh Amendment to the Constitution of the United States, Plaintiff demands a trial by jury of all claims and all issues triable as of right by jury in this action.

BOUCHARD MARGULES &
FRIEDLANDER, P.A.

BY


Andre G. Bouchard (I.D. No. 2504)
John M. Seaman (I.D. No. 3863)
222 Delaware Avenue, Suite 1400
Wilmington, DE 19801
Telephone: 302.573.3500
abouchard@bmf-law.com
jseaman@bmf-law.com

OF COUNSEL:

Attorneys for Plaintiff
Ronald A. Katz Technology Licensing, L.P.

Robert T. Haslam
Andrew C. Byrnes
HELLER EHRMAN LLP
275 Middlefield Road
Menlo Park, CA 94025-3506
650.324.7000

Michael K. Plimack
Dale A. Rice
HELLER EHRMAN LLP
333 Bush Street
San Francisco, CA 94104-2878
415.772.6000

Dated: August 6, 2007

EXHIBIT A

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,292,547 B1
DATED : September 18, 2001
INVENTOR(S) : Ronald A. Katz

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page.

Item [56], References Cited, U.S. PATENT DOCUMENTS:

Delete "3,794,219" and replace with -- 3,794,774 --
Delete "4,489,439" and replace with -- 4,489,438 --
After "4,757,267 7/1988 Riskin" please insert -- 379/113 --
After "4,996,705 2/1991
Entenmann et al." delete "379/91" and replace with -- 379/93.13 --

FOREIGN PATENT DOCUMENTS:

Delete "52-17440" and replace with -- 52-17740 --

OTHER PUBLICATIONS:

At "The Voice Response..." delete "Turnes" and replace with -- Turns --
At "Brochures" delete "feeling" and replace with -- flying --
At "Look Ma, no operators!" delete "doesmany" and replace with -- does many --
At "1,000,000 Shares Common Stock" delete "al,Inc.." and replace with -- al, Inc. --
At "D.I.A.L. Software..." delete "Relase" and insert -- Release --
At "Brady, R.L. et al.," delete Tehnical" and replace with -- Technical --
At "Kaiserman, D.B.," delete "Paleis" and replace with -- Palais --
Delete "Power To. ." and replace with -- Power To... --
At "Flanagan, J.L.," delete "Chap." and replace with -- Chapter --
Delete "Lucas, W.a.," and replace with -- Lucas, W.A., --
At "ICS launches" delete "ineteracive viedo" and replace with -- interactive video --
At Cuilwik, Tony" delete "52,53 ," and replace with -- 52, 53, --
At "Van Gieson" after "of fitting a" please insert -- spoken --
At "Vendor Index" delete "1989/1999" and replace with -- 1989/1990 --
At DECTalk Help..." delete "Cost" and replace with -- Costs --
At the first entry which begins with "Straight Talk" after "vol. 1," insert -- No. 1 --
At "Hardware for..." delete "cashless society" and insert -- 'cashless society' --, also
delete "Electronics" and insert -- Electronic --
Delete "'Distrust of computer kills home service plan'."
Delete "Lacter, Mark, "At Megaphone, It's Always Show Time", San Francisco
Chronicle, Jun. 9, 1986, Year No. 123, (different perspective)."
Delete "Megaphone" and insert -- Megaphone --

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,292,547 B1
DATED : September 18, 2001
INVENTOR(S) : Ronald A. Katz

Page 2 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

OTHER PUBLICATIONS cont'd,

At "Kent, Debra" delete "strectches" and insert -- stretches --

Delete second occurrence of "Making Your Phone Talk to Computers", U.S. News, Sep. 23, 1985."

Delete "1985. Robinett" and replace with -- Robinett --

At "Keep up with your favorite..." delete "costa" and replace with -- Costa --

At Behr, Debra, delete ""Victory" and replace with -- "'Victory' --

At "Newcomer MEGAPHONE" delete "Ecxhange" and replace with -- Exchange --

Delete "News brief" and replace with -- News briefs --

Delete "New a products" and replace with -- New products --, also delete "Jul. 1989" and replace with -- 7/89 --

At Takano, H." delete "Mulitpair" and replace with -- Multipair --

At "General Description..." delete "Syste" and replace with -- System --

At "Newton, Harry" delete "Network's" and replace with -- Newton's --

Delete "voice response" and replace with -- Voice response --

At "Finnegan, P.F." after "-(Letters)." insert a hard return, so that "International Programs" begins a new entry.

At "You Can Use..." delete "Receivce" and replace with -- Receive --

At Basinger, R.G." delete "1992" and replace with -- 1982 --

Column 17,

Line 53, delete "and-the" and replace with -- and the --

Column 20,

Line 32, delete "unit_" and replace with -- unit --

Line 67, delete "the-system" and replace with -- the system --

Column 21,

Line 3, delete "the-television" and replace with -- the television --

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,292,547 B1
DATED : September 18, 2001
INVENTOR(S) : Ronald A. Katz

Page 3 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 22,

Line 12, before "testing caller" please insert -- means for --

Line 66, delete "callers" and replace with -- caller, --

Column 24,

Line 25, delete "20" and replace with -- 21 --



Attest:

Brenda Moore

Attesting Officer

Signed and Sealed this

Nineteenth Day of November, 2002

A handwritten signature in black ink, appearing to read "James E. Rogan", written over a horizontal line.

JAMES E. ROGAN

Director of the United States Patent and Trademark Office

(12) **United States Patent**
Katz(10) **Patent No.: US 6,292,547 B1**
(45) **Date of Patent: *Sep. 18, 2001**(54) **TELEPHONIC-INTERFACE STATISTICAL ANALYSIS SYSTEM**1022674 12/1977 (CA) .
1025118 1/1978 (CA) .

(List continued on next page.)

(75) Inventor: **Ronald A. Katz**, Los Angeles, CA (US)(73) Assignee: **Ronald A. Katz Technology Licensing, L.P.**, Los Angeles, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/270,241**(22) Filed: **Mar. 15, 1999****Related U.S. Application Data**

(60) Continuation of application No. 08/475,425, filed on Jun. 7, 1995, which is a division of application No. 07/335,923, filed on Apr. 10, 1989, which is a continuation of application No. 07/194,258, filed on May 16, 1988, now Pat. No. 4,845,739, which is a continuation-in-part of application No. 07/018,244, filed on Feb. 24, 1987, now Pat. No. 4,792,968, which is a continuation-in-part of application No. 06/753,299, filed on Jul. 10, 1985, now abandoned.

(51) **Int. Cl.**⁷ **H04M 11/00**(52) **U.S. Cl.** **379/93.12; 379/91.02**(58) **Field of Search** 379/91.01, 91.02,
379/92.01, 92.03, 93.02, 93.03, 93.12, 93.13,
93.14(56) **References Cited****U.S. PATENT DOCUMENTS**2,902,541 9/1959 Singleton .
2,941,161 6/1960 Scantlin .
3,060,275 10/1962 Meacham et al. .

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

66113/81 7/1981 (AU) .

OTHER PUBLICATIONSLexis Search Results (Great American Potato-Chip giveaway/Raisin Bran Game/Giants Baseball Trivia—Dial Info):
“In The Chips” AdWeek, Jul. 22, 1985.

“San-Fran-Police-League”, Business Wire, Aug. 2, 1985.

“Similar Campaigns”, DM News, Dec. 15, 1985.

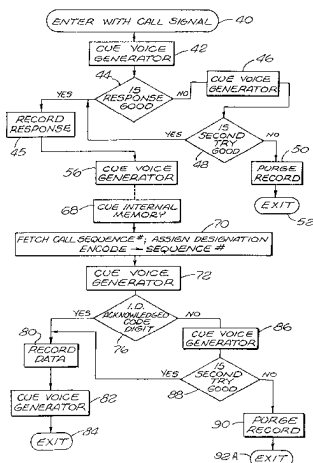
“Phone Offers Action at Push of Button”, Advertising Age, Feb. 6, 1986.

Boies, Stephen J., “A Computer Based Audio Communication System”, *Computer Sciences Department*, Thomas J. Watson Research Center, Yorktown Heights, New York, USA, pp. 701-704—(Article) (Undated).

(List continued on next page.)

Primary Examiner—Stella Woo(74) *Attorney, Agent, or Firm*—Lyon & Lyon LLP(57) **ABSTRACT**

A system D interfaces with a multiplicity of individual terminals T1-Tn of a telephone network facility C, at the terminals callers are prompted by voice-generated instructions to provide digital data that is identified for positive association with a caller and is stored for processing. The caller's identification data is confirmed using various techniques and callers may be ranked and accounted for on the basis of entitlement, sequence or demographics. Callers are assigned random designations that are stored along with statistical and identification data. A break-off control circuit may terminate the computer interface aborting to a terminal for direct communication with an operator. Real-time operation processing is an alternative to stored data. The accumulation of stored data (statistical, calling order sequence, etc.) is variously processed and correlated as with developed or established data to isolate a select group or subset of callers who can be readily identified and reliably confirmed. Different program formats variously control the processing of statistical data as for auction sales, contests, lotteries, polls, commercials and so on.

50 Claims, 6 Drawing Sheets

US 6,292,547 B1

Page 2

U.S. PATENT DOCUMENTS

3,076,059	1/1963	Meacham et al. .	4,145,578	3/1979	Orriss .
3,082,402	3/1963	Scantlin .	4,150,255	4/1979	Theis et al. .
3,128,349	4/1964	Boesch et al. .	4,152,547	5/1979	Theis .
3,159,818	12/1964	Scantlin .	4,160,125	7/1979	Bower et al. .
3,246,082	4/1966	Levy .	4,162,377	7/1979	Mearns .
3,249,919	5/1966	Scantlin .	4,187,498	2/1980	Creekmore .
3,299,210	1/1967	Bandy .	4,191,376	3/1980	Goldman .
3,337,847	8/1967	Olsson et al. .	4,191,860	3/1980	Weber .
3,347,988	10/1967	Marill et al. .	4,194,089	3/1980	Hashimoto .
3,371,162	2/1968	Scantlin .	4,200,770	4/1980	Hellman et al. .
3,381,276	4/1968	James .	4,201,887	5/1980	Burns .
3,393,272	7/1968	Hanson .	4,223,183	9/1980	Peters, Jr. .
3,394,246	7/1968	Goldman .	4,232,199	11/1980	Boatwright et al. .
3,482,057	12/1969	Abbott et al. .	4,241,942	12/1980	Bachman .
3,515,814	6/1970	Morgan .	4,242,539	12/1980	Hashimoto .
3,544,769	12/1970	Hedin .	4,243,844	1/1981	Waldman .
3,556,530	1/1971	Barr .	4,255,618	3/1981	Danner et al. .
3,557,311	1/1971	Goldstein .	4,260,854	4/1981	Kolodny et al. .
3,568,157	3/1971	Downing et al. .	4,264,924	4/1981	Freeman .
3,569,939	3/1971	Doblmaier et al. .	4,264,925	4/1981	Freeman et al. .
3,571,799	3/1971	Coker, Jr. et al. .	4,270,024	5/1981	Theis et al. .
3,573,747	4/1971	Adams et al. .	4,277,649	7/1981	Sheinbein .
3,581,072	5/1971	Nymeyer .	4,290,141	9/1981	Anderson et al. .
3,594,004	7/1971	Barr .	4,299,637	11/1981	Oberdeck et al. .
3,617,638	11/1971	Jochimsen et al. .	4,302,810	11/1981	Bouricius et al. .
3,618,038	11/1971	Stein .	4,303,804	12/1981	Johnson et al. .
3,624,292	11/1971	Guzak, Jr. .	4,307,266	12/1981	Messina .
3,644,675	2/1972	Wallington .	4,314,103	2/1982	Wilson .
3,647,973	3/1972	James et al. .	4,317,961	3/1982	Johnson .
3,651,480	3/1972	Downing et al. .	4,320,256 *	3/1982	Freeman 379/92
3,656,113	4/1972	Lince .	4,323,770	4/1982	Dieulot et al. .
3,665,107	5/1972	Kopec et al. .	4,328,396	5/1982	Theis .
3,675,513	7/1972	Flanagan et al. .	4,338,494	7/1982	Theis .
3,688,126	8/1972	Klein .	4,339,798	7/1982	Hedges et al. .
3,696,335	10/1972	Lemelson .	4,345,315	8/1982	Cadotte et al. .
3,697,702	10/1972	Buonsante et al. .	4,348,554	9/1982	Asmuth .
3,781,810	12/1973	Downing .	4,355,207	10/1982	Curtin .
3,792,446	2/1974	McFiggins et al. .	4,355,372	10/1982	Johnson et al. .
3,794,219	2/1974	Kemmerly et al. .	4,360,827	11/1982	Braun .
3,800,283	3/1974	Gropper .	4,371,752	2/1983	Matthews et al. .
3,858,032	12/1974	Scantlin .	4,376,875	3/1983	Beirne .
3,870,821	3/1975	Steury .	4,389,546	6/1983	Glisson et al. .
3,881,160	4/1975	Ross .	4,393,277	7/1983	Besen et al. .
3,889,050	6/1975	Thompson .	4,398,708	8/1983	Goldman et al. .
3,909,553	9/1975	Marshall .	4,405,829	9/1983	Rivest et al. .
3,912,874	10/1975	Botterell et al. .	4,420,656	12/1983	Freeman .
3,914,747	10/1975	Barnes et al. .	4,427,848	1/1984	Tsakanikas .
3,918,174	11/1975	Miller et al. .	4,439,635	3/1984	Theis et al. .
3,920,908	11/1975	Kraus .	4,439,636	3/1984	Newkirk et al. .
3,928,724	12/1975	Byram et al. .	4,451,087	5/1984	Comstock .
3,934,095	1/1976	Matthews et al. .	4,451,700 *	5/1984	Kempner et al. 379/92
3,947,972	4/1976	Freeman .	4,468,528	8/1984	Reece et al. .
3,950,618	4/1976	Bloisi .	4,475,189	10/1984	Herr et al. .
3,974,338	8/1976	Luzier et al. .	4,489,439	12/1984	Hughes .
3,982,103	9/1976	Goldman .	4,490,583	12/1984	Bednarz et al. .
3,989,899	11/1976	Norwich .	4,494,197	1/1985	Troy et al. .
3,991,406	11/1976	Downing et al. .	4,511,764	4/1985	Nakayama et al. .
3,998,465	12/1976	Mascola .	4,517,410	5/1985	Williams et al. .
4,009,342	2/1977	Fahrenschon et al. .	4,518,827	5/1985	Sagara .
4,012,599	3/1977	Meyer .	4,521,643	6/1985	Dupuis et al. .
4,017,835	4/1977	Randolph .	4,523,055	6/1985	Hohl et al. .
4,024,345	5/1977	Kochem .	4,532,378	7/1985	Nakayama et al. .
4,054,756	10/1977	Comella et al. .	4,539,435	9/1985	Eckmann .
4,071,698 *	1/1978	Barger, Jr. et al. 379/92	4,539,436	9/1985	Theis .
4,078,316	3/1978	Freeman .	4,544,804	10/1985	Herr et al. .
4,088,838	5/1978	Nakata et al. .	4,547,851	10/1985	Kurland .
4,090,038	5/1978	Biggs .	4,549,047	10/1985	Brian et al. .
4,108,361	8/1978	Krause .	4,555,594	11/1985	Friedes et al. .
4,117,278	9/1978	Ehrlich et al. .	4,559,415	12/1985	Bernard et al. .
4,121,052	10/1978	Richard .	4,559,416	12/1985	Theis et al. .
			4,562,342	12/1985	Solo .

US 6,292,547 B1

Page 3

4,566,030	1/1986	Nickerson et al. .	4,789,928	12/1988	Fujisaki .
4,567,359	1/1986	Lockwood .	4,791,664	12/1988	Lutz et al. .
4,570,930	2/1986	Matheson .	4,792,968	* 12/1988	Katz 379/97
4,577,062	3/1986	Hilleary et al. .	4,796,293	1/1989	Blinken et al. .
4,577,067	3/1986	Levy et al. .	4,797,910	1/1989	Daudelin .
4,578,700	3/1986	Roberts et al. .	4,797,911	* 1/1989	Szlam et al. 379/92
4,580,012	4/1986	Matthews et al. .	4,797,913	1/1989	Kaplan et al. .
4,582,956	4/1986	Doughty .	4,799,156	1/1989	Shavit et al. .
4,584,602	4/1986	Nakagawa .	4,800,583	1/1989	Theis .
4,585,906	4/1986	Matthews et al. .	4,805,209	2/1989	Baker, Jr. et al. .
4,586,707	5/1986	McNeight et al. .	4,812,843	3/1989	Champion, III et al. .
4,587,379	5/1986	Masuda .	4,815,031	3/1989	Furukawa .
4,591,190	5/1986	Clark .	4,815,121	3/1989	Yoshida .
4,591,664	5/1986	Freeman .	4,815,741	3/1989	Small .
4,592,546	6/1986	Fascenda et al. .	4,827,500	5/1989	Binkerd et al. .
4,594,476	6/1986	Freeman .	4,842,278	6/1989	Markowicz .
4,598,367	7/1986	DeFrancesco et al. .	4,845,739	* 7/1989	Katz 379/92.01
4,603,232	7/1986	Kurland et al. .	4,847,890	7/1989	Solomon et al. .
4,611,094	9/1986	Asmuth et al. .	4,852,154	7/1989	Lewis et al. .
4,614,367	9/1986	Breen .	4,853,882	8/1989	Marshall .
4,625,079	11/1986	Castro et al. .	4,856,050	8/1989	Theis et al. .
4,625,276	11/1986	Benton et al. .	4,866,756	* 9/1989	Crane et al. 379/88
4,630,200	12/1986	Ohmae et al. .	4,876,592	10/1989	Von Kohorn .
4,630,201	12/1986	White .	4,876,717	10/1989	Barron et al. .
4,634,809	1/1987	Paulsson et al. .	4,882,473	11/1989	Bergeron et al. .
4,635,251	1/1987	Stanley et al. .	4,893,328	1/1990	Peacock .
4,645,873	2/1987	Chomet .	4,893,330	1/1990	Franco .
4,649,563	3/1987	Riskin .	4,894,857	1/1990	Szlam et al. .
4,652,998	3/1987	Koza .	4,896,345	1/1990	Thorne .
4,654,482	3/1987	DeAngelis .	4,897,867	1/1990	Foster et al. .
4,658,417	4/1987	Hashimoto et al. .	4,899,375	2/1990	Bauer et al. .
4,663,777	5/1987	Szeto .	4,907,079	3/1990	Turner et al. .
4,665,502	5/1987	Kreisner .	4,908,761	3/1990	Tai .
4,669,730	6/1987	Small .	4,908,850	* 3/1990	Masson et al. 379/91
4,671,512	6/1987	Bachman et al. .	4,922,520	5/1990	Bernard et al. .
4,674,044	6/1987	Kalmus et al. .	4,922,522	5/1990	Scanlon .
4,677,552	6/1987	Sibley, Jr. .	4,937,853	6/1990	Brule et al. .
4,677,553	6/1987	Roberts et al. .	4,942,598	7/1990	Davis .
4,685,123	8/1987	Hsia et al. .	4,942,599	7/1990	Gordon et al. .
4,688,170	8/1987	Waite et al. .	4,942,616	* 7/1990	Linstroth et al. 379/142
4,689,742	* 8/1987	Troy et al. 364/412	4,943,995	7/1990	Dandelin et al. .
4,692,817	9/1987	Theis .	4,955,047	9/1990	Morganstein et al. .
4,694,490	9/1987	Harvey et al. .	4,959,783	9/1990	Scott et al. .
4,696,028	9/1987	Morganstein et al. .	4,961,217	10/1990	Akiyama .
4,696,029	9/1987	Cohen .	4,964,157	10/1990	Aoshima .
4,697,282	9/1987	Winter et al. .	4,965,825	10/1990	Harvey et al. .
4,704,725	11/1987	Harvey et al. .	4,969,183	11/1990	Reese .
4,706,275	11/1987	Kamil .	4,969,185	11/1990	Dorst et al. .
4,710,955	* 12/1987	Kauffmann 379/92	4,972,461	11/1990	Brown et al. .
4,715,061	12/1987	Norwich .	4,974,252	11/1990	Osborne .
4,716,583	12/1987	Groner et al. .	4,975,945	12/1990	Carbullido .
4,719,647	1/1988	Theis et al. .	4,989,233	1/1991	Schakowsky et al. .
4,722,526	2/1988	Tovar et al. .	4,992,940	2/1991	Dworkin .
4,745,468	5/1988	Von Kohorn .	4,996,705	* 2/1991	Entenmann et al. 379/91
4,748,668	5/1988	Shamir et al. .	5,001,710	3/1991	Gawrys et al. .
4,756,020	* 7/1988	Fodale 379/112	5,003,574	3/1991	Denq et al. .
4,757,267	7/1988	Riskin .	5,014,298	5/1991	Katz .
4,761,684	8/1988	Clark et al. .	5,017,917	5/1991	Fisher et al. .
4,763,191	* 8/1988	Gordon et al. 379/91	5,018,736	5/1991	Pearson et al. .
4,764,666	8/1988	Bergeron .	5,023,904	6/1991	Kaplan et al. .
4,766,604	8/1988	Axberg .	5,046,183	9/1991	Dorst et al. .
4,774,655	9/1988	Kollin et al. .	5,083,272	1/1992	Walker et al. .
4,781,377	11/1988	McVean et al. .	5,097,528	3/1992	Gursahaney et al. .
4,782,510	11/1988	Szlam .	5,109,414	4/1992	Harvey et al. .
4,783,796	11/1988	Ladd .	5,127,003	6/1992	Doll, Jr. et al. .
4,783,800	11/1988	Levine .	5,146,491	9/1992	Silver et al. .
4,785,408	* 11/1988	Britton et al. 379/88	5,181,238	1/1993	Medamana et al. .
4,788,682	11/1988	Vij et al. .	5,233,654	8/1993	Harvey et al. .
4,788,715	11/1988	Lee .	5,255,183	10/1993	Katz .
4,788,716	11/1988	Zebe .	5,263,723	11/1993	Pearson et al. .
4,788,718	11/1988	McNabb et al. .	5,333,185	7/1994	Burke et al. .

US 6,292,547 B1

Page 4

5,335,277 8/1994 Harvey et al. .
 5,351,276 9/1994 Doll, Jr. et al. .
 5,353,335 10/1994 D'Urso et al. .

FOREIGN PATENT DOCUMENTS

1056500 6/1979 (CA) .
 1059621 7/1979 (CA) .
 1162336 2/1984 (CA) .
 1225759 8/1987 (CA) .
 2009937-2 8/1990 (CA) .
 2929416 2/1981 (DE) .
 3726366 2/1988 (DE) .
 4005365 A1 8/1990 (DE) .
 0 120 322 2/1984 (EP) .
 0 229 170 A 7/1987 (EP) .
 0249575 12/1987 (EP) .
 0295837 12/1988 (EP) .
 0342295 11/1989 (EP) .
 0434181 6/1991 (EP) .
 0 568 114 A 11/1993 (EP) .
 0 620 669 A 10/1994 (EP) .
 9002131 8/1990 (FR) .
 2184327A 6/1987 (GB) .
 2 230 403 A 10/1990 (GB) .
 52-17440 9/1977 (JP) .
 56-152365 11/1981 (JP) .
 62-239757 10/1987 (JP) .
 500138/88 1/1988 (JP) .
 298158/90 12/1990 (JP) .
 41855/91 2/1991 (JP) .
 WO 87/00375 1/1987 (WO) .
 WO88/02966 4/1988 (WO) .
 WO88/05985 8/1988 (WO) .
 WO89/02139 3/1989 (WO) .
 WO89/09530 10/1989 (WO) .
 WO93/05483 3/1993 (WO) .

OTHER PUBLICATIONS

Winckelmann, W.A., "Automatic Intercept Service", *Bell Laboratories Record*, May 1968, vol. 46, No. 5, pp. 138-143—(Article).

"Proposed Agreement Between National Enterprises Board (N.E.B.) and Delphi", Jan. 30, 1979.

Voysey, Hedley, "Nexos wins rights to comms engine", *Computing*, Sep. 6, ??, vol. 7, No. 36—(Article).

"Appraisal of The Fair Market Value of Delphi Communications", Apr. 30, 1980—(Study). Delphi Communications—(Charts and Exhibits).

"Voice-Response System Improves Order Entry, Inventory Control", *Communication News*, Aug. 1976—(Article).

"Periphonics VOICEPACK"—(Brochure) (Undated).

"The Voice Response Peripheral That Turns Every Touch-Tone Telephone Into A Computer Terminal", Periphonics Corporation—(Brochure) (Undated).

Rabin, Jeff, "Minorities Seek 30% Share of All Lottery Operations", *Sacramento Bee*, Apr. 12, 1985—(Article).

Advertisements (Dial Giants Baseball Trivia Game): *San Francisco Chronicle*, Jul. 3, 1984.

Curtis, Cathy, "976 numbers let you dial-a-whatever", *San Francisco Business Journal*, Nov. 26, 1984—(Article).

Ferrell, Jane, "Three little numbers for instant information", *San Francisco Chronicle*, Aug. 15, 1984—(Article).

"Dallas Telephone Call-In Game Uses Computer Voice Interface", Sep. 24, 1984—(Press Release).

Rivest, R.L., et al., "A Method for Obtaining Digital Signatures and Public-Key Cryptosystems", *Communications of the ACM*, Feb. 1978, vol. 21, No. 2, pp. 120-126—(Article).

Finnigan, Paul F, "Audiotex: The telephone as data-access equipment", *Data Communications*, 1987, pp. 155-161 (Article).

Ozawa, Y., et al., "Voice Response System and Its Applications", *Hitachi Review*, Dec. 1979, vol. 28, No. 6, pp. 301-305—(Article).

"AT&T 2: Reaches agreement with Rockwell (ROK)", Aug. 26, 1986—(Press Release). "AT&T: Expands Computer speech sytem product line", Apr. 14, 1986—(Press Release).

Adams, Cynthia, "Conversing With Computers", *Computerworld on Communications*, May 18, 1983, vol. 17, No. 20A, pp. 36-44—(Article).

Hester, S. D., et al., "The AT&T Multi-Mode Voice Systems—Full Spectrum Solutions for Speech Processing Applications", Sep. 1985, pp. 1-10—(Proceedings of the 1985 AVIOS Conference).

Davidson, Leon, "A Pushbutton Telephone for Alphanumeric Input", *Datamation*, Apr. 1966, pp. 27-30—(Article). Advertisement: Cuervo Gold Beach Chair, VoiceMail Int'l, '83.

"Digital's All-In-1 Voice Messaging", *Digital*—(Brochure) (Undated).

"Access Voice and Mail Messages From One Familiar Source", *Insight*—(Article) (Undated).

"Get The Message . . . !" "New Voicemail Features", *Voicemail International, Inc.*, Oct. 1984—(Article).

Brochures (TWA Crew Scheduling/PSA's Reservation System/Universal Studios Program/Dow Phone): "AVIAR The communication system that keeps you feeling", VoiceMail Int'l—(Brochure) (Undated).

"TWA VOICEMAIL, Flight Attendants Users Guide" Aug. 1986,—(Brochure).

Holtzman, Henry, "Voice Mail Soars At TWA", *Modern Office Technology* (Reprint), Mar. 1986,—(Article).

"Bid Results via VOICEMAIL—Flight Deck Crew Members", May 1, 1985 (Script).

Borden, W.S., "Flight Attendant Self Input of Monthly Bids Via Touch Tone Telephone", *In-Flight Services Bulletin*, Sep. 15, 1985—(Memo).

"Look Ma, no operators ! Automatic voice system does many airline jobs", *Air Transport World*, Oct. 1986—(Article).

"1,000,000 Shares Common Stock" *Voicemail International, Inc.* Jan 10, 1984—(Public Offering Summary).

Levinson, S.E., et al., "A Conversational-Mode Airline Information and Reservation System Using Speech Input and Output", *The Bell System Technical Journal*, Jan. 1980, vol. 59, No. 1, pp. 119-137.

Emerson, S.T., "Voice Response Systems—Technology to the Rescue for Business Users", *Speech Technology*, Jan./Feb. '83, pp. 99-103—(Article).

Moslow, Jim, "Emergency reporting system for small communities", *Telephony*, Feb. 11, 1985, pp. 30-32, 34—(Article).

Rabiner, L.R., et al., "Digital Techniques for Computer Voice Response: Implementation and Applications", *Proceedings of the IEEE*, Apr. 1976, vol. 64, No. 4, pp. 416-432—(Article).

Moosemiller, J.P., "AT&T's CONVERSANT™ I Voice System" *Speech Technology*, Mar/Apr. 1986, pp. 88-93—(Article).

US 6,292,547 B1

Page 5

- Frank, R.J., et al., "No. 4 ESS: Mass Announcement Capability", *The Bell System Technical Journal*, Jul/Aug. 1981, vol. 60, No., 6, Part 2, pp. 1049-1081—(Chapter from a Book).
- "Chapter 1 General Description" *D.I.A.L. PRM/Release 3—Version 2* Mar. 1987 (Product Reference Manual).
- "Announcing Release 3.3" *D-A-S-H-D.I.A.L. Application and Support Hints*, Jan/Feb. Mar. 1987, vol. 3, No. 1—(Brochure).
- "D.I.A.L. Software Release 4", *OPCOM*, Jan. 1988, Version 1—(Product Reference Manual).
- Brady, R.L., et al., "Telephone Identifier Interface", *IBM Technical Disclosure Bulletin*, Oct. 1976, vol. 19, No. 5, pp. 1569-1571—(Article).
- Corbett, A.J., "Telephone Enquiry System Using Synthetic Speech", *University of Essex*, Dec. 1974, (Thesis).
- Yoshizawa, K., et al., "Voice Response System for Telephone Betting", *Hitachi Review*, Jun. 1977, vol. 26, No. 6—(Article).
- Sagawa, S., et al., "Automatic Seat Reservation By Touch-Tone Telephone", *Second USA Japan Computer Conference*, 1975, vol. 2, pp. 290-294—(Article).
- Smith, S.L., "Computer-Generated Speech and Man-Computer Interaction", *Human Factors*, 1970, 12(2), pp. 215-223—(Article).
- Newhouse, A., et al., "On The Use of Very Low Cost Terminals", *University of Houston*, pp. 240-249—(Paper) (Undated).
- Mullen, R.W., "Telephone -home's 'friendliest' Computer", *Inside Telephone Engineer And Management*, May 15, 1985, vol. 89, No. 10,—(Article).
- "Telephone Computing Entering Service Bureau Business", *American Banker*, Jul. 5, 1979—(Article).
- Kutler, Jeffrey, "Technology, System Sharing Improve Phone Banking Outlook", *American Banker*, Dec. 7, 1979, vol. CXLIV, No. 237—(Article).
- Kutler, Jeffrey, "Phone Bill Paying Accessed by Pioneer", *American Banker*, Dec. 7, 1979, vol. CXLIV, No. 237—(Article).
- "User's Guide", *Dowphone* (Undated).
- "Audiotex Information From Dow Jones", *The Computer Review*, Nov. 1984, vol. 2, No. 1—(Article).
- "Dow Phone Adds Innovest Systems' Technical Analysis Reports" *IDP Report*, Jan. 3, 1986—(Report).
- Perdue, R.J., et al., "Conversant 1 Voice System: Architecture and Applications", *AT&T Technical Journal*, Sep./Oct. 1986—(Article).
- Martin, James, "Design of Man-Computer Dialogues", *IBM System Research Institute*, Chapter 16, pp. 283-306—(Chapter from a Book) (Undated).
- Kaiserman, D.B., "The Role Of Audio Response In Data Collection Systems", *Proceedings of the Technical Sessions*, Paleis des Expositions, Geneva, Switzerland, Jun. 17-19, 1980 pp. 247-251—(Article).
- Boies, S.J., et al., "User Interface for Audio Communication System", *IBM Technical Disclosure Bulletin*, Dec. 1989, vol. 25, No. 7A, pp. 3371-3377—(Article).
- Kramer, J.J., "Human Factors Problems in the Use of Pushbutton Telephones for Data Entry", *Bell Telephone Laboratories*, Holmdel, N.J., Apr. 74, pp. 241-258—(Paper).
- Cox, Jr., Floyd, "Flora Fax", Jan. 22, 1986—(Letter and Advertisements).
- Isayama, Tetsuya, "Automatic Response Processing Equipment as a Multi-media Communication Node", *Japan Telecommunications Review*, 1987, vol. 29, No. 1, pp. 29-36—(Article).
- Imai, Y., et al., "Shared Audio Information System Using New Audio Response Unit" *Japan Telecommunications Review*, Oct. 1981, vol. 23, No. 4, pp. 383-390—(Article).
- "Distrust of computer kills home service plan" (date and source missing).
- "Automatic Call Distributor/Management Information System: Interface between 1/1AESS™ Switch Central Office and Customer Premises Equipment", *Bell Communications Research*, Dec. 1986, Technical Reference TR-TSY-000306, Issue 1—(Article).
- "Comparison of ACD Systems", *Connection*, Feb. 1990—(Chart).
- "ACD Comparison", *Aspect*, Feb. 2, 1990—(Final Report).
- "AT&T's Response to Plaintiff's Second Set of Interrogatories to Defendant AT&T Corp. (Nos. 17-18)", *Ronald A. Katz Technology Licensing, L.P. and MCI Telecommunications Corp.*, Civil Action No. 97-4453 (USDC, ED PA).
- Lanzeter, Ygal, "Automatic Number Identification System For Step-By-Step Exchanges", *The Ninth Convention of Electrical and Electronics Engineers In Israel* Apr. 1975—(Paper).
- Flanagan, J.L., et al., "Speech Synthesis", Chapters 1, 39, 42, 45 and 46—(Chapter from a Book).
- "Bell Atlantic's Bolger Wants To Be Free", *Telephony*, Jul. 14, 1986—(Article).
- "Advanced New Cable TV Technology Developed For Impulse-Pay-Per-View", Jun. 3., 1985 (Search).
- Noll, M.A., "Introduction to Telephones & Telephone Systems", Second Edition, Chapter 9—(Chapter from a Book).
- "Proposal for Kome Mediavoice Interactive Phone/Database Marketing System", "Mediavoice Startup Software Package for Kome" "Optional Mediavoice Software Packages for Kome" "Why ATI Mediavoice Is The Choice For Success"—(Proposal).
- Meade, Jim, Dec., 29, 1992—(Letter).
- "All About Voice Response", *Datapro Research Corporation*, Delran, N.J., Mar. 1972 and Sep. 1974—(Article).
- "Voice Response in Banking Applications", *Datapro Research Corporation*, Delran, N.J., Oct. 1974 and Feb. 1983—(Article).
- Schiller, T.R., "Field Craft Technician Communication With A Host Computer Synthesized Voice", *Proceedings AVIOS '86 Voice I/O Systems Applications Conference*, Sep. 16-18, 1986.
- Rabin, Richard, "Telephone Access Applications: The Growth Market for Voice Processing", *Proceedings AVIOS '86 Voice I/O Systems Applications Conference*, Oct. 6-8, 1987.
- Schuster, E.R., "B.R.U.T.U.S. Better Registration Using Touch-Tone phones for University Students", *Proceedings AVIOS '86 Voice I/O Systems Applications Conference*, Oct. 4-6, 1988.
- "Exxon's Next Prey. IBM and XEROX", *BusinessWeek*, Apr. 28, 1980, pp. 92-96 and 103—(Article).
- Weinstein, S.B., "Emerging Telecommunications Needs of the Card Industry", *IEEE Communications Magazine*, Jul. 1984, vol. 22, No. 7, pp. 26-31—(Article).
- "Riding Gain", *Broadcasting*, Mar. 7, 1983—(Article).
- Pickup, Mike, "Bank from home, by screen or by phone", *Building Society Gazette*, Jul. 1988—(Article).

US 6,292,547 B1

Page 6

- Pickup, Mike, "Voice Response", *Computer Systems*, Sep. 1986—(Article).
- Rabiner, L.R., et al., "Isolated and Connected Word Recognition—Theory and Selected Applications", *IEEE Transactions on Communications*, May 1981, Com. 29, No. 5, pp. 621, 622, 633, 644–646, 655–659—(Article).
- Takahashi, K., et al., "The Audio Response System for Telephone Reservation", U.D.C. Oka, Y., et al., "Development of Ventilating Equipment for Shinkansen Train", U.D.C.—(Articles in Japanese)
- Pagones, M.J., et al., "New services follow increased digitization on the long-haul transmission network", *AT&T Bell Laboratories Record*, 1983, vol. 61, pp. 25–33—(Article).
- "New phone service tells customer who's calling", *Bell Laboratories Record*, 1984, vol. 62, p. 9—(Article).
- Hirschman, C.B., et al., "LASS: Putting the telephone customer in charge", *Bell Laboratories Record*, 1985, vol. 63, pp. 10–16—(Article).
- "AT&T building communications network for Defense Department" and "AT&T inaugurates pay-per-view TV", *Bell Laboratories Record*, 1986, vol. 64, p. 2—(Article).
- "Power To . . .", *Dialogic Corporation*, Littleton Road,—(unidentifiable Article).
- "Representative Customer List For Interface Technology's Total Entry System", "Toes Solutions—Pharmaceutical Manufacturer", "The Voice Response Solution For Answering Customer/Sales Calls", "Toes Solutions—Orthopedic Equipment" and "Toes Solutions—Convenience Store"—(Articles).
- Lummis, R.C., "Speaker Verification: A Step Toward the "Checkless" Society", *Bell Laboratories Record*, pp. 254–259—(Article).
- Flanagan, J.L., et al., "Synthetic voices for computers", *IEEE Spectrum*, Oct. 1970, vol. 7, No. 10, pp. 22–45—(Article).
- Rabiner, L. R., et al., "Computer Synthesis of Speech by Concatenation of Formant-Coded Words", *The Bell System Technical Journal*, May/Jun. 1971, pp. 1541–1558—(Chapter from a Book).
- Flanagan, J.L., et al., "Wiring Telephone Apparatus from Computer—Generated Speech", *The Bell System Technical Journal*, Feb. 1972, pp. 391–397—(Chap. from a Book).
- Hornsby, Jr., Thomas G., "Voice Response Systems", *Modern Data*, Nov. 1972, pp. 46–50—(Article).
- Diffie, W., et al., "New Directions in Cryptography", *IEEE Transactions On Information Theory*, Nov. 1976, vol. IT-22, No. 6, pp. 644–654—(Article).
- Rosenthal, L.H., et al., "Automatic voice response: interfacing man with machine", *IEEE Spectrum*, Jul. 1974, vol. 11, No. 7—(Article).
- Rosenthal, L.H., et al., "A Multiline Computer Voice Response System Utilizing ADPCM Coded Speech", *IEEE Transactions on Acoustics, Speech, and Signal Processing*, Oct. 1974, vol. ASSP-22, No. 5, pp. 339–352—(Article).
- Flanagan, James L., "Computers that Talk and Listen: Man-Machine Communication by Voice", *Proceedings for the IEEE*, Apr. 1976, vol. 64, No. 4, pp. 405–415—(Article).
- Maisel, Ivan, "To Put Your Baseball Savvy On The Line, Pick Up The Phone And Call", *Sports Illustrated*, Sept. 3, 1984—(Script).
- Brown, Merrill, "Hollywood Saga: Who Bought J. R.?", *The Washington Post*, Final Edition, Oct. 14, 1984—(Script).
- "SPECIAL-OLYMPICS: Teams with baseball trivia expert Brad Curtis", *Business Wire*, Sep. 30, 1985—(Script).
- Lucas, W.a., et al., "The Spartanburg Interactive Cable Experiments In Home Education", *Rand Corp.*, U.S. Department of Commerce, National Technical Information Service Feb., 1979—(Publication).
- Martin, James, "Viewdata And The Information Society",—(Book).
- Gawrys, G.W., "Ushering in the Era of ISDN", *AT&T Technology*, 1986, vol. 1, No. 1, pp. 2–9—(Article).
- Cummings, J.L., et al., "AT&T Network Architecture Evolution", *AT&T Technical Journal*, May/Jun. 1987, vol. 66, Issue 3, pp. 2–12—(Article).
- Yates, C.E., "Telemarketing and Technology: Perfect Business Partners", *AT&T Technology*, 1987, vol. 1, No. 3, pp. 48–55—(Article).
- Herr, T.J., "ISDN Applications in Public Switched Networks", *AT&T Technology*, 1987, vol. 2, No., 3, pp. 55–65—(Article).
- "Only the best. Only from Florafax", *Florafax*—(Advertisement).
- Aldefeld, B., et al., "Automated Directory Listing Retrieval System Based on Isolated Word Recognition", *Proceedings of the IEEE*, Nov. 1980, vol. 68, No. 11, pp. 1364–1379—(Article).
- Rabiner, L.R., et al., "On the Application of Embedded Training to Connected Letter Recognition for Directory Listing Retrieval", *AT&T Bell Laboratories Technical Journal*, Mar. 1984 vol. 63, No. 3, pp. 459–477—(Chapter from a Book).
- Rosenberg, A.E., et al., "Recognition of Spoken Spelled Names for Directory Assistance Using Speaker-Independent Templates", *The Bell System Technical Journal*, Apr. 1980, vol. 59, No. 4, pp. 571–592—(Chapter from a Book).
- "The Voicestar Series By Periphonics", *Periphonics*, Jan. 1986—(Publication).
- "Bank-From-Home system by Periphonics Corporation".
- "Bill Payment Success Story", *Periphonics Corporation*.
- "A History of Imagination", *Periphonics*.
- "Banking Success Story", *Periphonics Corporation*.
- "DataVoice and the PDT II", *Periphonics Corporation*.
- "Banking Success Story", *Periphonics Corporation*—(Brochures).
- Schulman, Roger, "TeleLearning: The Computer Brings the Classroom Home", *Family Computing*, Sep., 1984, pp. 50–53—(Article).
- "ICS launches new ?-home ineteractive viedo service package", *Cable Vision*, Sep. 3, 1984, pp. 71/73—(Article).
- "The Remarketing of Prestel", *Which Computer?*, Aug. 1984, pp. 106, 107 and ?—(Article).
- "Four-Line TeleClerk Calls, Answers, Stores, Surveys", *Hardcopy*, Jan. 1985, vol. 14, No. 1—(Article).
- "Peripheral Speaks on Phone", *Hardcopy*, Dec. 1984—(Article).
- Page from *What's new in Computing*, Apr. 1985—(Article).
- Page from *Today*, A Compuserve Publication, Jun. 1985—(Article).
- Page from *Computer Communications*, Feb. 1984, vol. 7, No. 1—(Article).
- Gits, Victoria, "Interactive device doesn't interrupt telephone calls", *Cable Vision*, Jun. 17, 1985, p. 20—(Article).
- Cuilwik, Tony, "Reach Out & Touch The Unix System", *Unix Review*, Jun. 1985, pp. 50, 52, 53, 56—(Article).
- Blackwell, Gerry, "Dial-a-Quote: first Canadian commercial audiotex service", *Computing Canada*—(Article).

US 6,292,547 B1

Page 7

- Applebaum, Simon, "Two-Way television" *Cable Vision*, Aug. 8, 1983, p. 66—(Article).
- Sw?ne, Michael, "Fiber-optic TV networks lets viewers talk back", *Info World*—(Article).
- Morrill, C.S., et al., "User Input Mode and Computer-Aided Instruction", *Human Factors*, 1968, 10(3), pp. 225–232 —(Chapter from a Book).
- Results of Lexis Search Request for "Dial Info or Dialinfo", Date of Search Apr. 13, 1992, pp. 1–38.
- Results of Lexis Search Request for "Phone Programs or International Information Network", Date of Search Apr. 15, 1992, pp. 1–35.
- Van Gieson, Jr. W.D., et al., "Machine-Generated Speech for Use With Computers, and the problem of fitting a word into one half second", *Computers and Automation*, Nov. 1968, pp. 31–34—(Article).
- Patel, Jay, "Utility of voice response system depends on its flexibility", *Bank Systems & Equipment*, Dec. 1988, pp. 101/103—(Article).
- Buron, R.H., "Generation of a 1000-Word Vocabulary for a Pulse-Excited Vocoder Operating as an Audio Response Unit", *IEEE Transactions on Audio and Electroacoustics*, Mar. 1986, vol. AU-16, No. 1, pp. 21–25 —(Article).
- Gaines, B.R., et al., "Some Experience in Interactive System Development and Application", *Proceedings of the IEEE*, Jun. 1975, vol. 63, No. 6, pp. 894–911—(Article).
- "Application for Registration of Equipment to be Connected to the Telephone Network", *Federal Communication Commission*, FCC Form 730.
- Dudley, Homer, "The Vocoder", Circuit Research Department, Dec. 1939, pp. 122–128 —(Chapter from a Book).
- "Voice Response System Order Entry, Inventory Control". "Vendor Index", *Auditex Directory & Buyer's Guide*, Fall/Winter 1989/1999, pp. 114–156.
- Francas, M., et al., "Input Devices For Public Videotex Services", *Human-Computer Interaction -INTERACT '84*, 1985, pp. 171–175—(Paper).
- Labrador, C., et al., "Experiments in Speech Interaction With Conventional Data Services", *Human-Computer Interaction-INTERACT'84*, 1985, pp. 225–229—(Paper).
- Long, J., et al., "Transaction Processing Using Videotex or: Shopping on Prestel", *Human-Computer Interaction-INTERACT'84*, 1985, pp. 251–255—(Paper).
- Electrical Communication*, 1981, vol. 56, Nos. 1–4, pp. 1–110—(Paper).
- Conway R.W., et al., "Tele-CUPL: A Telephone Time Sharing System", *Communication of the ACM*, Sep. 1967, vol. 10, No. 9, pp. 538–542—(Article).
- Marill, T., et al., "DATA-DIAL: Two-Way Communication with Computers From Ordinary Dial Telephones", *Communications of the ACM*, Oct. 1963, vol. 6, No. pp. 622–624—(Article).
- Witten, I.H., "Communicating With Microcomputers", pp. 121–158—(Chapter from a Book).
- "Call-It-Co. Hangs Up On Dial-It In Four Markets", *The 976 Exchange*, 1984, vol. 2, pp. 1–6 (Article).
- "DECTalk Help Boston's Shawmut Bank Cut Cost and Improve Service", *Digital*—(Article).
- "VTK 81 Voice Computer", *Voicetek*, 1987 (Brochure).
- "How a Computerized 'Voice' Answers Customer's Inquiries", *Bank Automation Newsletter*, Feb. 1985, Vol. 19, No. 2 (Article).
- Rickman, J., et al., "Speech Synthesizers—Communications Interface—Implementing A Touch Tone Telephone Talker With DECTalk", *The DEC Professional*, May 1985, pp. 38, 39, 42–44 (Article).
- "DECTALK DELIVERS", *Digital Review*, Sep. 1985—(Article).
- "DECTalk turns a telephone into a terminal",—"UNIX and Digital",—"Legal protection for semiconductor chips",—"Product safety",—*DECWORLD*, Apr. 1985, vol. 9, No. 2, pp. 1, 3, 5, 6–8—(Article).
- "DECTalk: A New Text-to-Speech Product" *Digital Guideline*, Mar. 1984, vol. 8, No. 3, pp. 1–8—(Article).
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, vol. 1, pp. 1–6.
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, vol. 1, No. 2, pp. 1–7.
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, vol. 1, No. 3, pp. 1–8.
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, Vol. 1, No. 4, pp. 1–8.
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, Vol. 2, No. 2, pp. 1–8.
- Straight Talk*, A Newsletter about the DECTalk Speech Synthesizer from Digital Equipment Corporation, Vol. 2, No. 4, pp. 1–8.
- Various Reference/Articles attached with a letter from Smithwin Associates, dated Apr. 22, 1992.
- Riley, A.A., "Latest: 2-way communication by computer and telephone".
- ??even, W. ?, "Computer Helps Children to Add", *The New York Times*, Apr. 20, 1970.
- Harvey, R.W., *Times*, The Kiplinger Magazine. "A Computerized System ???", Nov. 23, 1970, p. 14, (unidentifiable Article).
- "Hardware for the cashless society", *Electronics Design* 3, Feb. 4, 1971, p. 26.
- Tennant, R.P., "Advanced credit system smooths operation and hastens payout", *Data Processing Magazine*, Jun. 1971, vol. 13, No. 6, pp. 34–35.
- "Computers that talk back to you", *Business Week*, Date ??.
- Smith, Gene, "Chatting Via Computer", *New York Times*, Sep. 12, 1971.
- EDP Weekly*, (unidentifiable Article).
- "Did Anybody Here Call a Computer", *Data Management*, Feb. 1967.
- Skala, Martin, "Straight talk from a computer", *Christian Science Monitor*, Jun. 14, 1973.
- "Computer for Watergate Probe", *Science*, Jun. 15, 1973.
- "Tapping AT&T for a \$50-million refund", *Business Week*, Jun. 9, 1973.
- "Distrust of computer kills home service plan".
- Scherer, Ron, "Chitchat with a computer", *Christian Science Monitor*, Apr. 16, 1975, p. 2.
- "Trying Out the Pay-by-Phone Service", *Technology Review*, Mar./Apr. 1976, p. 15.
- "Pentagon seeks more control", *Electronics*, Apr. 5, 1976, p. 39.
- "Everyman's Computer Terminal", *Industrial Research*, Mar./Apr. 1976, p. 14.

US 6,292,547 B1

Page 8

- "DOD could save on test equipment".
- "Talking computer speeds Ford parts", Apr. 25, 1976.
- "Customers of Ten Banks Paying Bills by Phone", *Computer World*, 1976, p. 12.
- "FAA to test computerized voice response to queries from pilots", *Electronics*, Nov. 25, 1976, p. 43.
- Miller, F.W., "Voice Response Comes to Life with Order Entry", *Infosystems*, Oct. 1981. pp. 62/64.
- Suppes, Patrick, "University-Level Computer-Assisted Instruction At Stanford: 1968-1980", *Institute for Mathematical Studies In The Social Sciences, Stanford University*, 1981, pp. 589-716.
- Lerner, E.J., "Products that talk", *IEEE spectrum*, Jul. 1982, pp. 32-37.
- Carlsen, Clifford, "Megaphone plans to blare message on national scale", *Times*, Mar. 2, 1987.
- Michelson, Marlene, "All Kinds of information at your fingertips by phone", *Business Times*, Sep. 8, 1986, vol. 3, No. 19.
- Lacter, Mark, "At Megaphone, It's Always Show Time", *San Francisco Chronicle*, Jun. 9, 1986.
- Table of Contents, *Megaphone Press Book*, pp. 1-3.
- "Miss Simpson, will you dial-a-joke for me please ?", Cartoon.
- Lacter, Mark, "At Megaphone, It's Always Show Time", *San Francisco Chronicle*, Jun. 9, 1986, Year No. 123, (different perspective).
- Lacter, Mark, "Narrating Fantasy Messages -It's No Dream Job", *San Francisco Chronicle*, Jun. 9, 1986.
- "Megaphone Serves High-Tech Showbiz", *San Francisco Chronicle*, Jun. 9, 1986.
- "Megaphone Reaches Unique Market", *San Francisco Chronicle*, Jun. 9, 1986.
- Feuer, Jack, "Asher/Gould: Megaphone Dials-a-Shop", *Adweek*, May 12, 1986.
- Symanovich, Steve, "Novelty over for phone porn vendors", and continuation "Big firms breathing down necks of small phone porns outfits" *San Francisco Business Journal*, May 5, 1986.
- Wilke, John, "A 'Dream' Business That's Just A Phone Call Away", *Information Processing*.
- Ketcham, D.E., "Dial-a-You-Name-It", *San Francisco Chronicle*, 1986.
- Carter, Alan, "What? You Didn't know Erica was engaged again?", *Daily News*, Mar. 12, 1986.
- "Firm plugs into sales with time, temp lines", *Crain's New York Business*, Mar. 3, 1986, vol. II, No. 9.
- Pitts, Gail, "Phone-in trivia games ring up profits", *The Denver Post*, Feb. 3, 1986.
- "Merge Towards Success" IIN and Megaphone, *The 976 Exchange*, Winter 1976, vol. 4.
- Nelson, David, "From dating to soap operas, 976 numbers come on line", *San Jose Business Journal Magazine*, Jan. 27, 1986.
- Greengard, Samuel, "Dial-A-Deluge", *Business*, Nov. 1985.
- "Numbers, Please", *Business*, Nov. 1985.
- "The 976 Telelease Co.", *Business Opportunites Journal*, Dec. 1985.
- "One-time refund for '976' charges", *San Francisco Examiner*, Nov. 7, 1985.
- Kent, Debra, "Interactive phone network stretches for calls", *Advertising Age*, Oct. 17, 1987.
- "Making Your Phone Talk To Computers", *U.S. News*, Sep. 23, 1985.
- "Making Your Phone Talk To Computers", *U.S. News*, Sep. 23, 1985.
- Mulqueen, John, "Int'l Information Network Eyes Contact With British Telecom", *Communications Week*, Sep. ??.
- Moorhead, Derrol, "Humor, romance: just a call away", *Rocky Mountain Collegian*, Sep. 19, 1985, vol. 94, Iss. 32.
- Keppel, Bruce, "Move Under Way to Curb Abuse of Popular Dial-It Service", *Los Angeles Times*, Sep. 1, 1985.
- "Dial-a-stock", *Forbes*, Aug. 1985.
- Sowa, Tom, "Games people play now include phone trivia", *Spokesman-Review*, Jul. 1985.
- Larson, Judy, "976 numbers entice adults -and kids", *Fremont Argus*, Jul. 8, 1985.
- Dougherty, P.H., "Advertising Telephone Is Growing As Medium", *The New York Times*, Jul. 17, 1985.
- Barbieri, Richard, "Prime Time for he Telephone", *Channels*, May/Jun. 1985, pp. 54-55.
- "Bank Provides Financial Fuel To Fast Track Company", *The Financial Center Bank*, First Quarter 1985, vol. II No. 1.
- "Don't Phone Santa", *San Francisco Chronicle*, Letters to the Editor, Mar. 29, 1985.
- Carvalho, Deborah, "Will Hillary find Happiness with Bob?", *Contra Costa Times*, Mar. 15, 1985.
- Murphy, Win, "Dial-a-romance", Mar. 13-19, 1985.
- ?, Martha, "Love, laughs, luck: Just a phone call away", *Burlington County Times*, Feb. 17, 1985.
1985. Robinett, Stephen, "Blood From A Rock", *Venture*, Jan. 1985, pp. 38-41, 44-45.
- Du Brow, Rick, "Lates hot lines for instant trivia pursuit", *Los Angeles Herald Examiner*, Dec. 6, 1984.
- "Keep up with your favorite soap operas", *Contra costa Times*, Nov. 30, 1984.
- Hanna, Barbara, "Inside Radio/TV".
- Behr, Debra, "Victory makes and writes its own on-the-road news", and "Whose calling ? Michael fans most likely . . .", *Los Angeles Times*, Nov. 29, 1984.
- "Newcomer MEGAPHONE Has Magnanimous Goals", *The 976 Exchange*, Fall 1984, vol. 2.
- "Phone Santa", *Vecaville Reporter*, Nov. 10, 1984.
- "Dial 976 for Profits", *Time*, Sep. 3, 1984.
- Pendleton, Mike, "For A Fee Your Phone Can Inform", *Burrelle's*, Jul. 19, 1984.
- "Phone numbers to get details about soaps", *Burrelle's*, Jul. 18, 1984.
- Gansberg, A.L., "976 phone prefix as new entertainment fad", *The Hollywood Reporter*, Jun. 21, 1984.
- Carvalho, Deborah, "Another 'GH' actor disconnected with the soap", *Contra Costa Times*, May 26, 1984, p. 4.
- "Keep up with your favorite soap operas", *San Francisco Examiner*.
- Du Brow, Rick, "'Dial-a-soap' service offers daily TV summaries", *Los Angeles Herald Examiner*, Apr. 26, 1984.
- News brief, Feb. 1966.
- Martin, J., et al. "The Computerized Society—An Appraisal of the impact of Computers on society over the next fifteen years", Chapter 10, pp. 211-266—(Chapter from a Book). New a products, *Datamation* Jul. 1966, vol. 12, No. 7, pp. Jul. 1989—(Article).
- Meacham, L.A., et al., "Tone Ringing and Pushbutton Calling", *The Bell System Technical Journal*, 1958, pp. 339-360—(Book).

US 6,292,547 B1

Page 9

- Suppes, Patrick, "The Uses of Computers in Education", *Scientific American*, Sep. 1966, vol. 215, No. 3, pp.—(Article).
- Bruckert, E., et al., "Three-tiered software and VSLI aid development system to read text aloud", *Electronics*, Apr. 21, 1983, pp. 133–138—(Article).
- Hochman, David, "Implementing Automatic Number Identification", *Telecommunications*, Dec. 1978, vol. 12, No. 12—(Article).
- Martin, James, "Telecommunications and the Computer", 2nd Edition, Introduction, pp. 20–23, Chapter 5, pp. 94–95, Chapter 18—(Chapter from a Book).
- Martin, James, "Telematic Society", Chapter 6, pp. 45–48, Chapter 9, pp. 67–69, Chapter 20, pp. 181–188 (Chapters from a Book).
- Martin, James, "The Wired Society", pp. 53–55, 71–79, 99–100, 204–205, 229–231—(Chapters from a Book).
- Martin, James, "Future Developments in Tele-Communications", 2nd Edition, Box A, Chapter 1, p. 5, Chapter 7, pp. 95, 111, Chapter 9, pp. 149–105, Chapter 12, pp. 207–209, Chapter 18, pp. 310–311, Chapter 19, pp. 314–317, 320 Chapter 20, pp. 330, Chapter 23, pp. 379–401—(Chapters from a Book).
- Ferrarini, E.M., "Infomania", pp. 59–61, 176–177, 191, 213–214, 223, 245, 250, 257, 285, 286—(Book).
- Kimura, Y., et al., "Audio Response System," vol. 55, No. 10, pp. 49–54—(Article in Japanese).
- Takano, H., "Characteristics of Multipair Exchange Area Telephone Cable with Cellular Polyethylene Insulation by Gas Injection Blowing", p. 55—(Article in Japanese).
- Takahashi, T., et al., "SR-2000 Voice Processor and Its Application", *NEC Research and Development*, 1984, No. 73, pp. 98–105—(Paper).
- "Concept Diagram Voicemail International System".
- "Voicemail Instruction Manual", *Televoice International*, Jun. 1981, Index.
- Eckhouse, John, "Voice mail spells relief for phone frustration", *San Francisco Examiner*, Feb. 7, 1982—(Article).
- Meade, Jim, "Throw away those pink Call-back slips", *InterOffice*, Jan/Feb. 1984, vol. 3, No. 1—(Article).
- Welsh, Jack, "Everybody's Talking About Talking Bouquets", *Design for Profit*, Spring 1986, pp. 7–10—(Article).
- Mosco, Vincent, "Pushbutton Fantasies", Contents, Chapter 3 and 4, pp. 67–118—(Chapters from a Book).
- Bretz, Rudy, "Media for Interactive Communication", Chapter 5, pp. 110–116, Chapter 7, pp. 143–153—(Chapters from a Book).
- Robinson, G., et al., "Touch-Tone Teletext a Combined Teletext-Viewdata System", *IEEE Transactions on Consumer Electronics*, Jul. 1979, vol. CE-25, No. 3, pp. 298–303—(Article).
- Voice News, Mar. 1982.
- Voice News, Jun. 1982, *William W. Creitz*.
- Voice News, Oct. 1982, p. 5.
- Voice News, Nov./Dec. 1983.
- "Consultant Report 28?", *AIS American Bell Advanced Information Systems*, Apr. 1983, pp. 27, 118–119, 123, 124—(Report).
- "T-1 Board Sets Deliver High Performance All Digital T-1 Solutions", *NMS Natural MicroSystems*—(Product Bulletin).
- "VBX Product Family Overview", *NMS Natural MicroSystems*, pp. 1–20—(Brochure).
- "Machine Operation Manual", May 12, 1978, Issue 1, pp. 1–3, 9–10—(Manual).
- Davey, J.P., "Dytel Western Region Sales Training Manual", 1985—(Manual).
- Gutcho, Lynette, "DECtalk—A Year Later", *Speech Technology*, Aug./Sep. 1985, pp. 98–102—(Article).
- Daniels, Richard, "Automating Customer Service", *Insurance Software Review*, Aug./Sep. 1989, pp. 60–62—(Article).
- Golbey, S.B., "Fingertip Flight Service", Oct. 1985—(Article).
- "ARO Goes Pushbutton", *Newsletter*, Nov. 1985, p. 9—(Article).
- "ROLM Centralized Attendant Service", *ROLM Corporation*, 1979.
- "AIS, Versatile Efficient Information Service", *Fujitsu Limited*, 1972, pp. 153–162—(Brochure).
- Smith, S.L., et al., "Alphabetic Data Entry Via the Touch-Tone Pad: A Comment", *Human Factors*, 1971, 13(2), pp. 189–190—(Book).
- Holtzman, Henry, "Still an Infant Technology VOICE MAIL", *Modern Office Technology*, Jun. 1985, pp. 78–80, 82, 84, 90—(Article).
- Leander, Monica, "Voice Response—A Technology for Solving Management Problems", *Speech Technology*, Mar./Apr. 1986, pp. 50–52—(Article).
- Stolker, Bud, "CompuCorder speech storage and output device. (evaluation)", *Creative Computing*, Jul. 1983, pp. 1–7.
- Witten, I.H., et al., "The Telephone Enquiry Service: a man-machine system using synthetic speech", *Int. J. Man-Machine Studies*, Jul. 1977, 9, pp. 449–464—(Book).
- Gould, R. L., "Fidelity's Automated Voice Response System", *Telecommunications*, Jan. 1981, pp. 27–28—(Article).
- "Fidelity Automated Service Telephone", *Fidelity Group*, 4 pages—(Manual).
- "Data Set 407 Interface Specification", *Manager—Data Systems & Operations*, Jun. 1975, Issue 2, pp. 1–69 plus Table of Contents—(Manual).
- Fitzwilliam, J.W., et al., "Transaction Network, Telephones, and Terminals", *The Bell System Technical Journal*, Dec. 1978, vol. 57, No. 10, pp. 3325–3537—(Book).
- Inbound Outbound*, May 1988, complete issue.
- Koch, Helmut, "Concord Design Services, Inc. Corporate Description", *Exacom*.
- Federal Communications Commission, FDC Form 484, Registration, Registrant: Concord Design Services, Inc. *Exacom Telecommunication Systems*—Brochure.
- General Description Installation and Operation Manual for Direct Inward (DID) Trunk Interface Unit, *Exacom Telecommunication Systems*, Nov. 21, 1989, Issue 3—(Manual).
- General Description Installation and Operation Manual for Answering Service Monitor System, *Concord Design Services, Inc.*, Dec. 19, 1986, Issue 1—Manual.
- "Dialogic Voice Solutions", *Dialogic Corporation*, pp. 1–72.
- "Why Is T-1 Important And How Can It Be Used", *Dialogic Corporation*, Application Note, pp. 1–6.
- "Use of Dialogic T-1 For Telemarketing Applications", *Dialogic Corporation*, Application Note, pp. 1–6.
- "Use of Dialogic T-1 In Operator Service Applications", *Dialogic Corporation*, Application Note, pp. 1–6.
- "Use of Dialogic T-1 In Telephone Company Networks", *Dialogic Corporation*, Application Note, pp. 1–10.

US 6,292,547 B1

Page 10

- "Use of Dialogic T-1 Equipment in CPE Gateways", *Dialogic Corporation*, Application Note, pp. 1-4.
- "Integrating Analog Devices into Dialogic-Based T-1 Voice Processing Systems", *Dialogic Corporation*, Application Note, pp. 1-16.
- "Use of Dialogic Components in Automatic Number Identification (ANI) Systems", *Dialogic Corporation*, Application Note, pp. 1-16.
- "Dialogic Unit Pricing", pp. 1-6.
- "Voice '92 Spring Conference & Exposition", 1992, pp. 1-24—(Brochure).
- "Telecom Developers '92", Jan. 1992—(Advertisement).
- Newton, Henry, "The Sheer Thrill of it All", *Teleconnect*, May 1991.
- "AFIPS Conference Proceedings", 1987 National Computer Conference, Jun. 15-18, 1987, Chicago, Illinois.
- "Dynamic Network Allocation".
- "Calling your computer is as easy as calling your broker, says AT&T", *Record*, Nov. 1985.
- Singleton, L. A., "Telecommunications in the Information Age", Chapter 12, pp. 115-125—(Chapter from a Book).
- Weitzen, H. S., "Telephone Magic", pp. 28-31, 38-39, 54-55, 62-67, 70-79, 82-85, 88-91, 106-115, 118-121, 126-127, 134-137, 176-177, Index—(Chapters from a Book).
- Weitzen, H.S., et al., "Infopreneurs", pp. 18-19, 138-145, 206-209, Index—(Chapters from a Book).
- Sullivan, Kathleen, "Paper firm relies on voice-based inventory system", *IDG Communications, Inc.*, Sep. 10, 1984—(Script).
- "VTK Training Section" and "Disk Initialization Procedures for VTK-30/60", *Voicetek Corporation*—(Manual).
- "VoiceStor Systems Integration Guide", *Voicetek Corporation*, May 2, 1983—(Manual).
- "VTK 60 Voice Computer—Technical Description", *Voicetek Corporation*, Oct. 1986—(Manual).
- "Voicetek VS-50 Telephone Interface System", Apr. 25, 1984, System Integration Guide—(Manual).
- "VTK Voice System—Programmers Guide", *Voicetek*—(Manual).
- "Disk Initialization Procedures for VTK-30/60", *Voicetek Corporation*—(Manual).
- "VTK81 Voice Computer—Technical Description", *Voicetek Corporation*, Oct. 1986—(Manual).
- "VTK Voice System—VTK/CE Guide", *Voicetek*, Jul. 6, 1987—(Manual).
- Newton, Harry, "Network's Telecom dictionary", *Telecom Library Inc.*, 1991—(Advertisement).
- "1987 Buyers Guide", *Teleconnect*, Jul. 1987, pp. 194, 197-210—(Brochure).
- Syntellect Inc.—Advertisements.
- Various copies of Business cards.
- Guncheon, M.C., "The Incredible Dial-A-Message Directory", *Contemporary Books, Inc.*, 1985—(Directory).
- "Voice Box Maintenance Manual", *Periphonics*, 1986—(Manual).
- "Voicepac Maintenance Manual", *Periphonics*, 1984—(Manual).
- Dyer, Ellen, "Wichita Firm Sells 25% Share", Dec. 14, 1987, and "Spectrum Carving Role In Volatile Business", Jul. 7, 1986, Search Results.
- "Don't Miss The Unique Gift Idea Of the Year", *Yam Educational Software*, 1987—(Advertisement).
- "Welcome to the future of advertising.", *Teleline, Inc.*, 1990—(Presentation).
- "Greeting Card Project", *Teleline, Inc.*, Nov. 7, 1988—(Flow Chart).
- Sharkey, Betsy, "Dialing for Dollars and Data", *Adweek*, Nov. 16, 1987, pp. 6-8—(Article).
- Gay, Verne, "CBS may tie rates to buying p?", 1988—(Article).
- Flanagan, J.L., et al., "Synthetic Voices For Computers", *IEEE International Conference on Communications*, 1970, pp. 45-9-45-10—(Conference Record).
- Rabiner, L.R., et al., "Computer Voice Response Using Low Bit Rate Synthetic Speech", *Digest IEEE 71 International Convention*, Mar. 22-25, 1971, pp. 1-2, Fig. 1-2—(Paper).
- "DT1000 Digitaltalker Speech Synthesis Evaluation Board", *National Semiconductor Corp.*, Oct. 1980—(Manual).
- "Data Set 407C Interface Specifications Nov. 1977", *Bell System Technical Reference*, Nov. 1977, pp. 1-50—(Paper).
- Broomfield, R.A., et al., "Making a data terminal out of the Touch-Tone telephone", *Electronics*, Jul. 3, 1980, pp. 124-129—(Paper).
- Godfrey, D., et al., "The Telidon Book—Designing and Using Videotex Systems", pp. 1-103—(Book).
- "Industry Marketing Bulletin", *Honeywell EDP Wellesley Hills*, Aug. 9, 1967.
- "Honeywell Communications Configuration Charts And Aids In Designing", *Data Communications*, pp. 3-1 -3-7 and A.
- "Burroughs Audio Response System", Reference Information for Sales Representatives, pp. 1-6 "New Product Announcement", *Burroughs Corporation*, Feb. 5, 1968.
- "Stand-Alone Lockbox Application Voice Response (Slave) Communication System Functional Specification", *Cognitronics Corporation*, Feb. 19, 1982, p. 21.
- "Unlock lockbox reporting. with Cognitronics Voice Response Communications System/Banking.", *Speech-maker a division of Cognitronics Corporation*.
- "Voice Response for Banking", *Cognitronics Corporation* (Brochure).
- "voice response application brief", *Speech-maker*—(Brochure).
- "Instant credit authorization is an easy touch when any telephone is a voice response computer terminal", *Speech-maker a division of Cognitronics Corporation*—(Article).
- Slutsker, Gary, "Relationship marketing", *Forbes*, Apr. 3, 1989—(Article).
- Finnigan, P.F., "To Our Shareholders", Jun. 1985, Apr. 7, 1986, Apr. 10, 1987 —(Letters) "International Programs" (Voicemail).
- Finnigan, P.F., "Our guest", *Radio-Schweiz AG Telekommunikation und Flugsicherung*, Jan., 1983, pp. 12-14, Bulletin.
- Finnigan, P.F., "Voice mail", *1983 National Computer Conference*, May 16-19, 1983, Anaheim, CA, pp. 375-377 and Abstract.
- "Conversations in Your Mailbox", *Software News*, Jan. 1985 —(Article).
- Fredric, Paul, "Voicemail Int'l, Radio Page America To Offer A 'Pocket News Network'", *Communications Week*, Jul. 8, 1985—(Article).
- "Voice-Messaging System: Use It While You're In, Not Out", *Information Week*—(Article).
- "Corporate Performance —Companies To Watch", *Fortune*, Sep. 30, 1985—(Article).

US 6,292,547 B1

Page 11

- "Dream Weaver", *Jon Lindy*, Aug. 1986, pp. 32-35, 37—(Article).
- "Turn any telephone into a complete electronic message service", *Voicemail*—(Brochure).
- Pages from Company Brochure, *Televoice International, Inc.*
- "VMI Big Talker", *Voicemail International, Inc.*—(News-letter).
- "Voiceletter No. 1", *Voicemail International, Inc.*, Dec. 1985.
- "Newsline", *Voicemail International, Inc.*, Oct. 1984 and Nov. 1984.
- "A New, More Productive Way to Use the Telephone", *Voicemail International, Inc.*—(Brochure).
- "While You Were Out . . ."—(Brochure).
- "?For People Who Can't Afford to Miss Messages", *Voicemail International, Inc.*—(Brochure).
- "Voicemail The electronic news service saves time, money and nerves", *Radio-Suisse Ltd.*, (Voicemail Agent for Europe)—(Brochure).
- "Are You Being Robbed of Your Time . . . ?", *Voicemail International, Inc.*—(Brochure).
- "Voicemail Instruction Manual B-85", *Televoice International*, Nov. 1980—(Manual).
- "Local Telephone Numbers" (for Voicemail) and "Televoice Is As Easy As 1, 2, 3 !", *Televoice International*—(Manual).
- "Voicemail Instruction Manual C-25", *Televoice International*, Jun. 1981—(Manual).
- "Telephone Numbers" (for Voicemail) and "How To Use Voicemail", *Televoicemail International*—(Manual).
- "Message Receiving/Sending" (and others), *Voicemail International, Inc.*—(Manual).
- "You Can Use Voicemail To Send And Receive Messages At Anytime Anywhere In The World", *Voicemail International Inc.*, 1981—(Brochure).
- "Advanced User Guide", *Voicemail International, Inc.*—(Manual).
- "Voicemail's Basic User's Guide", *Voicemail International, Inc.*—(Manual).
- "Welcome to Dowphone", *Dowphone*, Jan. 1986—(Manual).
- "Telephone 1-800 Check-PDR", *Officers of Medical Economics Company, Inc.*, 1986—(Circulation/Brochure).
- "Turn your telephone into an efficient electronic "mailbox"", *Western Union*, Jan. 1984—(Brochure).
- "Western Union Voice Message Service User's Guide", *Western Union*, Jul. 1984—(Brochure).
- "PSA's 24 hour reservation system", *PSA*, Sep. 1986—(Brochure).
- "To Better Serve Your Business, We're On Call Days, Nights and Weekends.", *Maryland Business Assistance Center*—(Brochure).
- "Voice Response: Breaks Trough Call Blockage.", *Business Week*, Aug. 26, 1985—(Advertisement for Preception Technology Corporation).
- "Tools for heavy hitters", *Forbes*, May 6, 1985.
- "The Fidelity Automated Service Telephone", *Fidelity Group*—(Manual/Brochure).
- "Stockquote Hotline", *Norwest Brokerage Services*—(Brochure).
- "All You Need To Get The Stock Quotes And News You Want." *Dowphone*, 1984—(Advertisement).
- "The Most Respected Name in Telemarketing", *West Interactive Corporation*—(2 Brochures).
- Borison, V.S. "TRANSACTION—telephone gets the fact at the point of sale", *Bell Laboratories Record*, Oct. 1975, pp. 377-383—(Article).
- Demeautis, M., et al., "The TV 200 A Transactional Telephone", *Commutation & Transmission n 5*, 1985, pp. 71-82—(Article).
- Eriksson G., et al., "Voice and Data Workstations and Services in the ISDN", *Ericsson Review.*, May 1984, pp. 14-19—(Article).
- Schrage, Michael, "A Game Von Meister in Pursuit of Profits", *Washington Post*, Sep. 23, 1985—(Article).
- Svigals, J., "Low Cost Point-Of-Sale Terminal", *IBM Technical Disclosure Bulletin*, Sep. 1982, vol. 25, No. 4, p. 1835.
- Turbat, A., "Telepayment And Electronic Money The Smart Card", *Commutation & Transmission n 5*, 1982, pp. 11-20—(Article).
- "Voice Mail", *Sound & Communications*, Apr. 1983, vol. 28, No. 12, pp. 84-85—(Article).
- Aso, Satoshi, "Trends and Applications of Voice Output Devices", *2209 J.E.E. Journal of Electronic Engineering*, Feb. 1982, vol. 19, No. 182, pp. 102-107—(Article).
- C.R. Newson, "Merlin Voice Mail VM600," *British Telecommunications Engineering*, vol. 4, Apr. 1985, pp. 32-35.
- Kroemer, F., "TELEBOX", *Unterrichtsblätter*, year 41/1988, No. 2, pp. 67-83 (Article)—no translation.
- Kroemer, F., "TELEBOX", *Unterrichtsblätter*, year 38/1985, No. 4, pp. 131-141 (Article)—no translation.
- A.S. Yatagai, "Telephonic Voice Synthesis Systems," *Telecommunications*, Aug. 1985, pp. 56h-l, 68.
- A.J. Waite, "Getting Personal With New Technologies For Telemarketers," *DM News*, Feb. 15, 1987 at 50.
- "Shopping via a network is no longer just talk," *Data Communications*, Aug. 1981 at 43.
- "Growth-Oriented Systems," *Restaurant Technology*, *Nation's Restaurant News Newspaper*, Jul. 1, 1985 at 51.
- "Let your fingers do the tapping . . . and the computer the talking," *Modern Office Tech.*, May 1984 at 80.
- "American Software unveils systems for IBM mainframes," *Computerworld*, Mar. 26, 1984 at 59.
- "Business Units Get Order Entry," *Computerworld*, Jul. 12, 1982 at 36.
- Basinger, R.G., et al., "Calling Card Service—Overall Description and Operational Characteristics", *The Bell System Technical Journal*, Sep., 1992.
- Confalone, D.E., et al., "Calling Card Service—TSPS Hardware, Software, and Signaling Implementation", *The Bell System Technical Journal*, Sep., 1982.
- Eigen, D.J., et al., "Calling Card Service—Human Factors Studies", *The Bell Technical Journal*, Sep., 1982.
- Lexis Search, Nov. 1, 1984, re: System 85 Computer Process.
- Lexis Search Jan. 28, 1985, re: Rolm Releases Four-Channel Phonemail Voice Message Unit.
- Bulfer, Andrew F., "AT&T's Pay-Per-View Television Trial", published in *AT&T Technical Journal*, May/Jun., 1987.

* cited by examiner

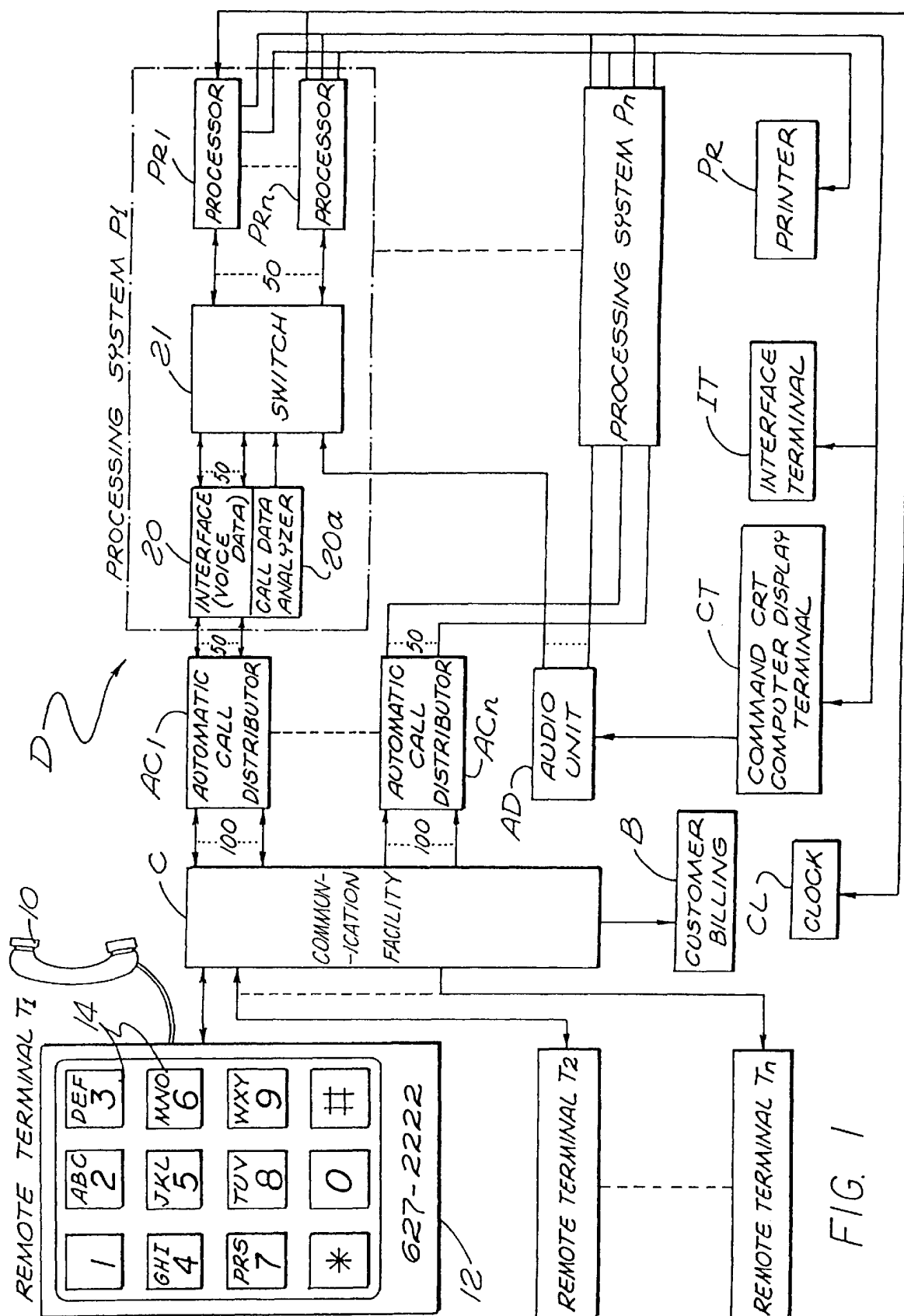
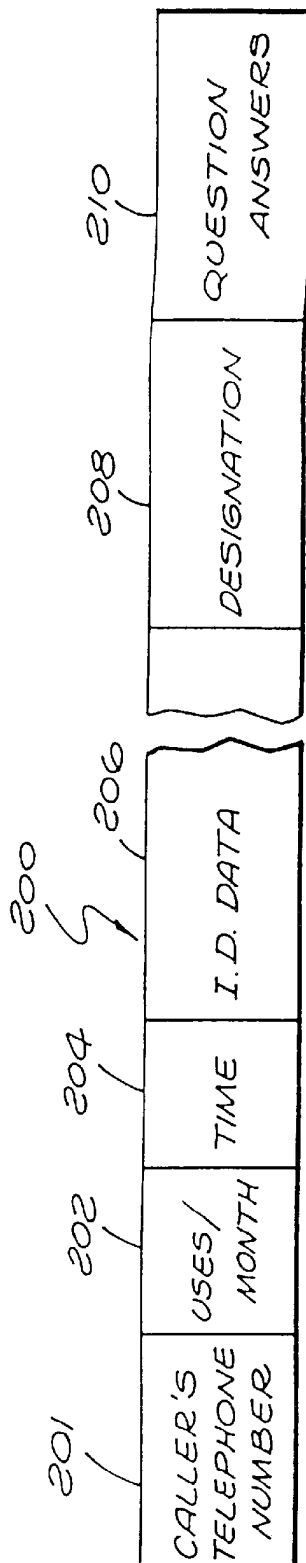
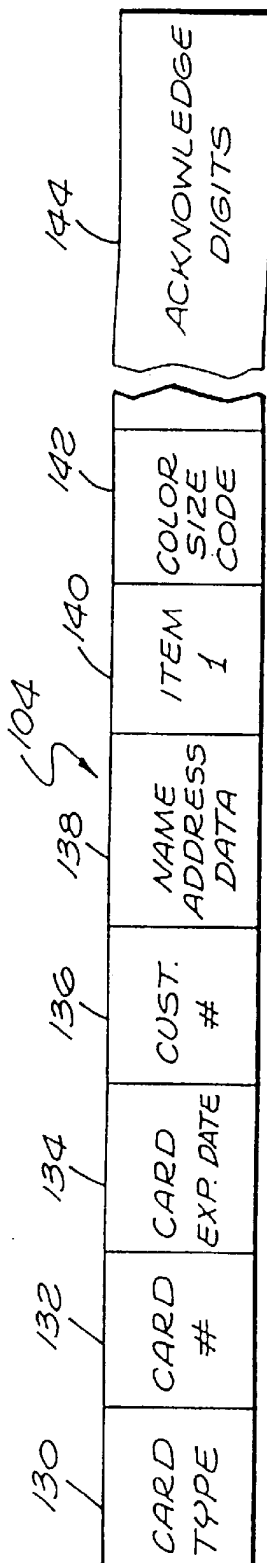
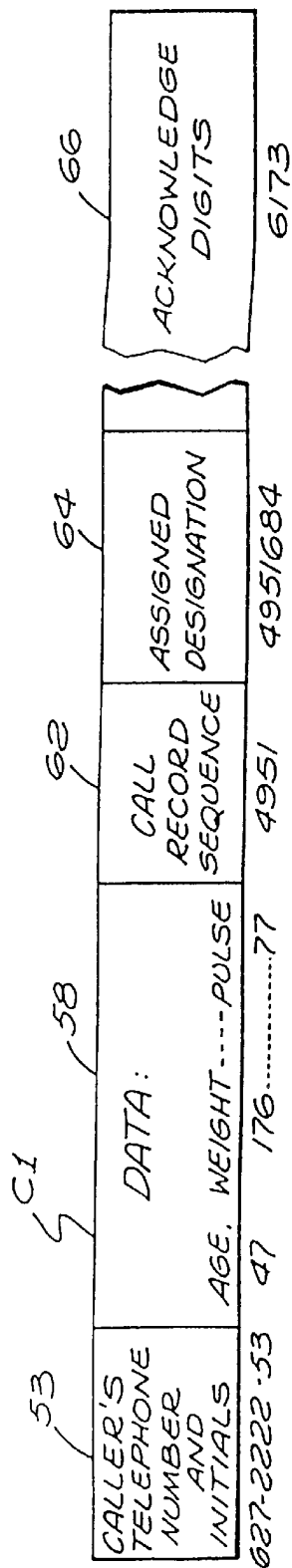


FIG. 1



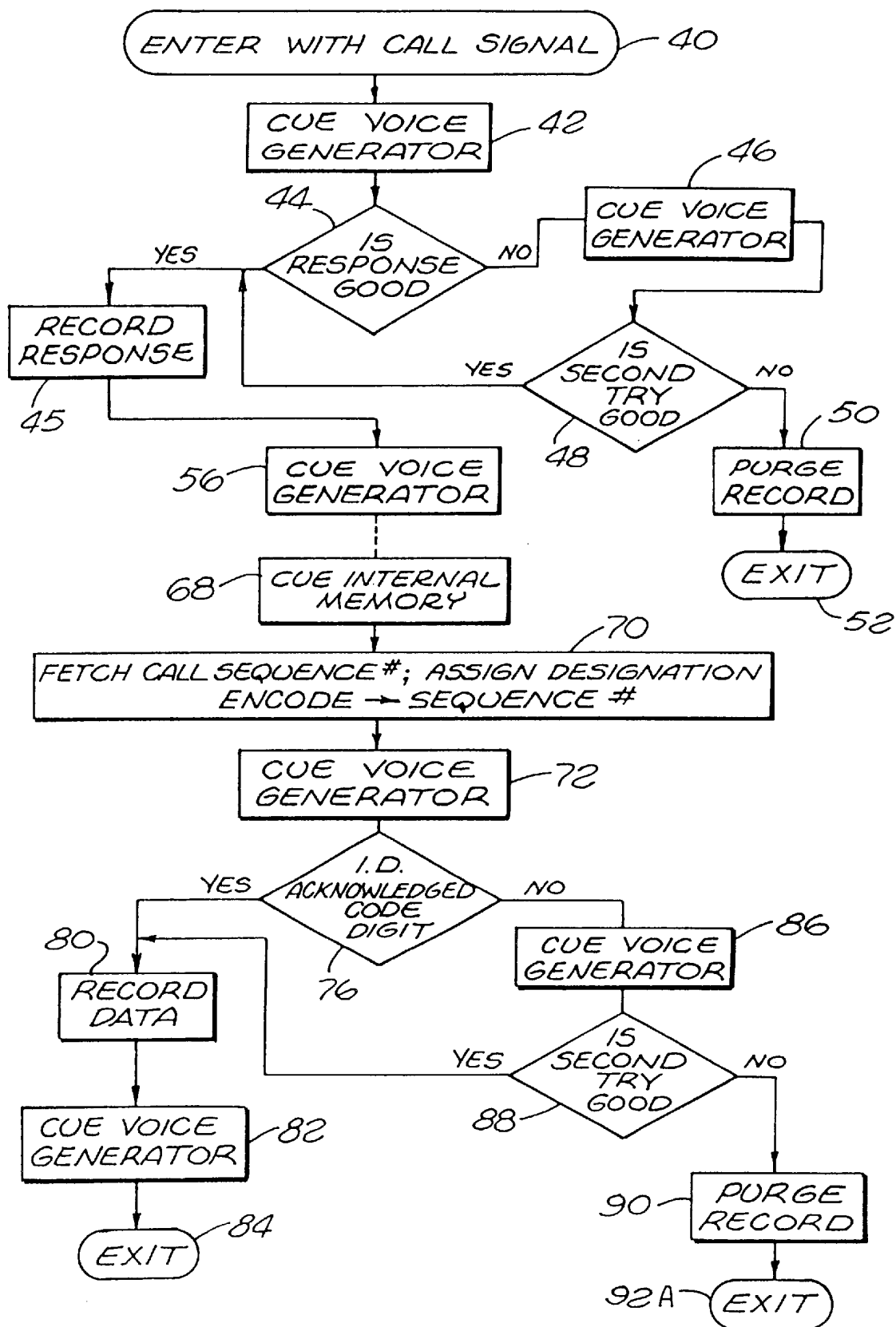


FIG. 3

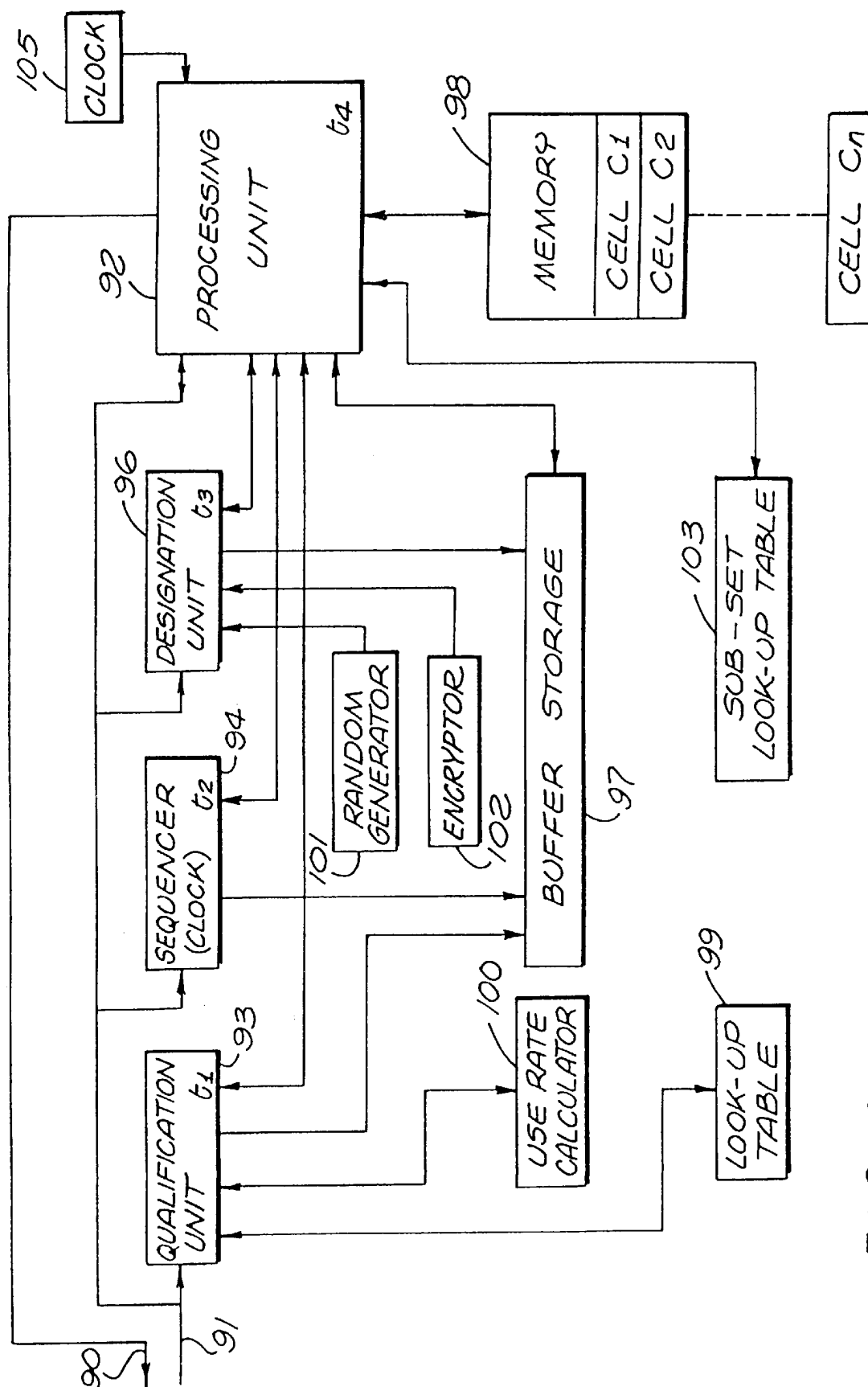


FIG. 4

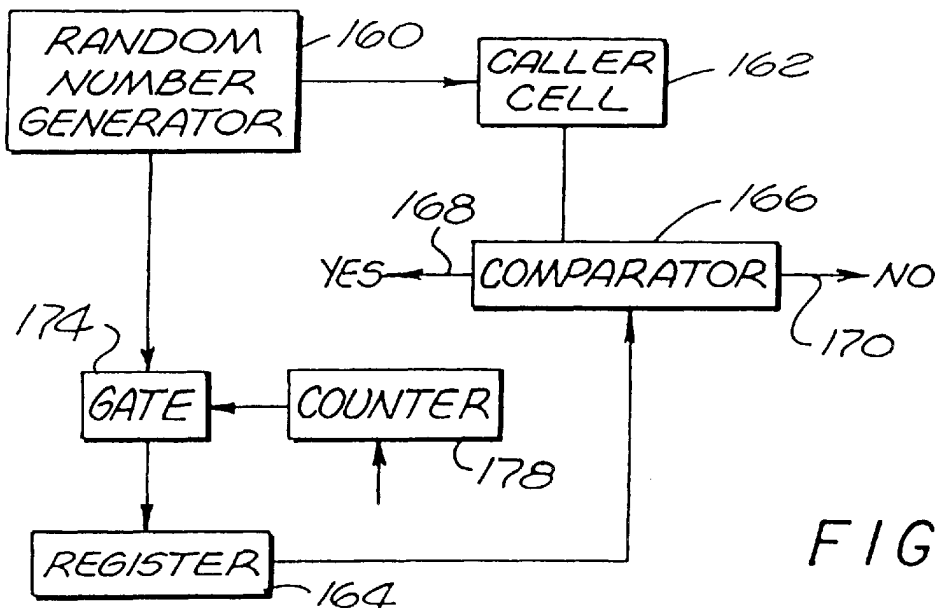


FIG. 6

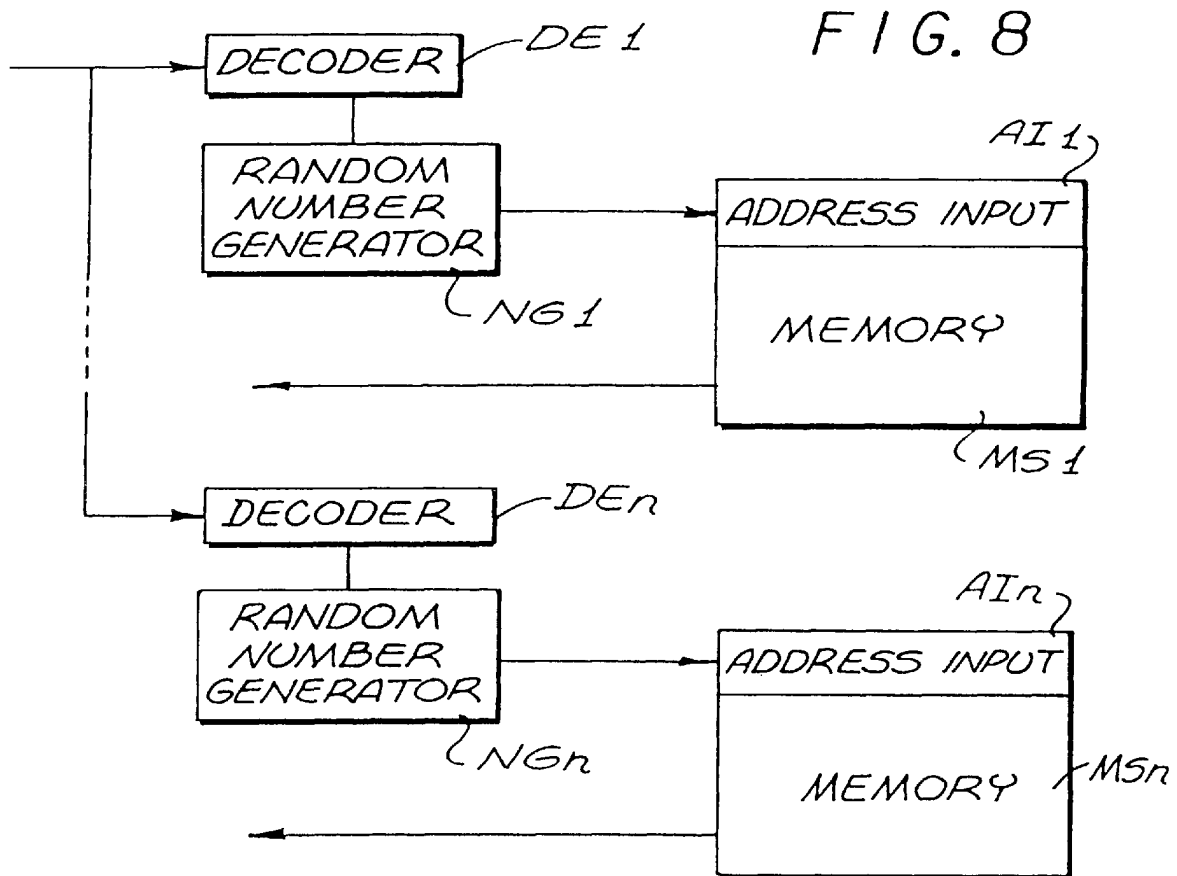


FIG. 8

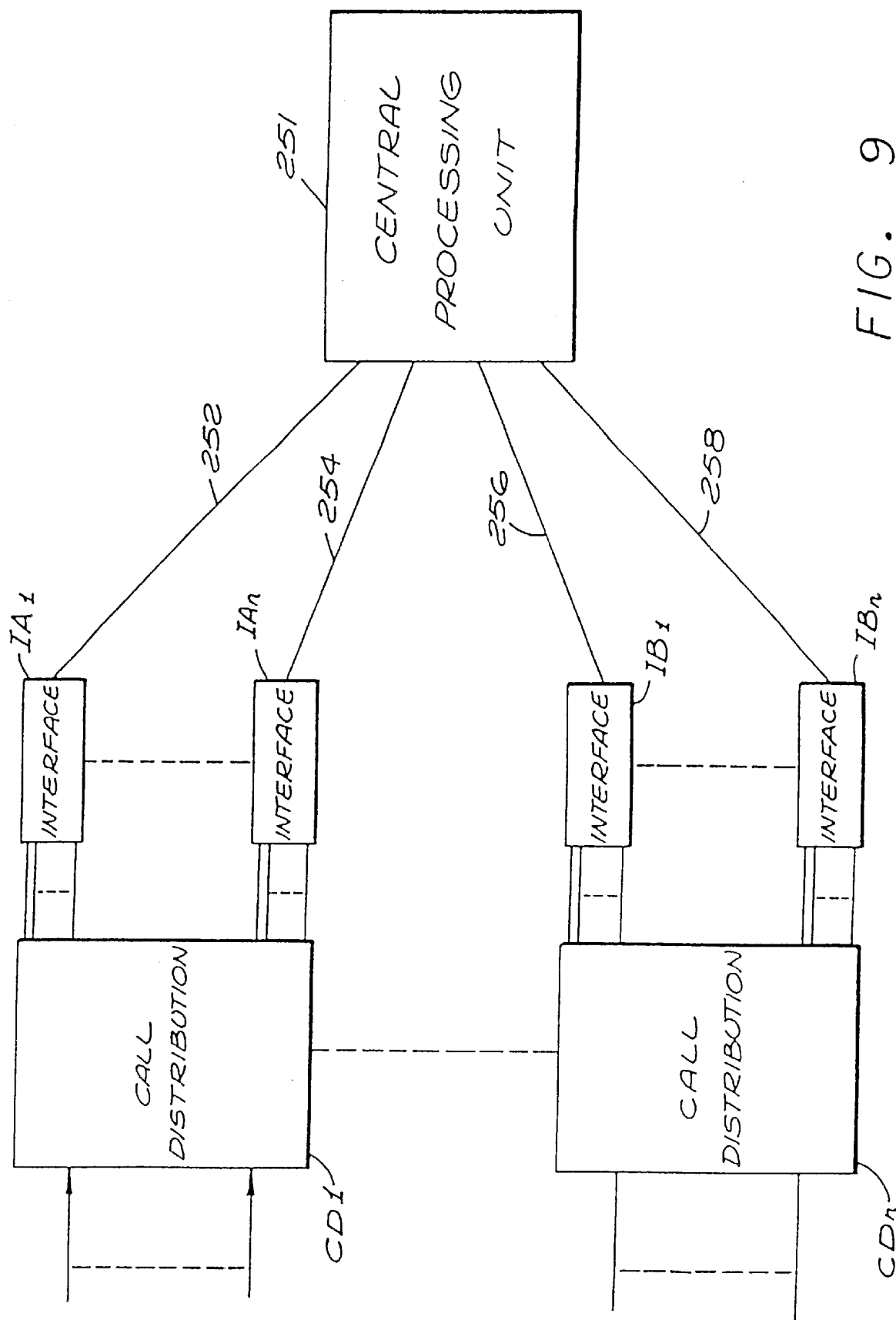


FIG. 9

US 6,292,547 B1

1

TELEPHONIC-INTERFACE STATISTICAL ANALYSIS SYSTEM

This application is a continuation of application Ser. No. 08/475,425, filed on Jun. 7, 1995, and entitled "Telephonic-Interface Statistical Analysis System," which is a divisional of application Ser. No. 07/335,923, filed on Apr. 10, 1989, and entitled "Telephonic-Interface Statistical Analysis System," which is a continuation of application Ser. No. 07/194,258, filed on May 16, 1988, and entitled "Telephonic-Interface Statistical Analysis System," now U.S. Pat. No. 4,845,739, which is a continuation-in-part of application Ser. No. 07/018,244, filed on Feb. 24, 1987, and entitled "Statistical Analysis System For Use With Public Communication Facility," now U.S. Pat. No. 4,792,968, which is a continuation-in-part of application Ser. No. 06/753,299, filed on Jul. 10, 1985, and entitled "Statistical Analysis System For Use With Public Communication Facility," now abandoned.

BACKGROUND AND SUMMARY OF THE INVENTION

Various forms of publicly accessible communication systems for providing access to a central station have been proposed, some involving telecommunications. However, sometimes a need for ancillary functions arise in that regard, e.g. it may be desirable to positively identify a large group of persons, as a demographically controlled group, or a specifically entitled group, then statistically analyze data from the group so as to accurately identify certain persons in the group and select a subset of at least one person. Specifically, it may be desirable to obtain medical data from an entitled group of people, to correlate such data, perhaps introduce external data, then identify a select subset of the group. In that regard, a need exists for an improved, effective, economical, and expedient system of telecommunication incorporating means for performing qualification, identification, analysis and selection of individual persons.

It has been proposed to interface persons at telephone calling stations directly with a computer facility. In accordance with such arrangements, recorded voice messages prompt callers to provide data by actuating the alphanumeric buttons that are conventionally employed for dialing from one telephone station to another. In one prior arrangement, a caller may actuate dialing buttons to selectively attain a communication channel or to address specific information in a computer. In another arrangement, dialing buttons may be actuated to specify a billing designation as for requested services. Generally, such systems are believed to have been somewhat limited in scope, often involving difficulties that are frustrating or confusing to a caller. Nevertheless, such techniques have been widely used to enhance and broaden communication.

In general, the present invention comprises a telephonic-interface system and related process for selectively utilizing both analog (voice) and digital telephonic communication in a variety of different interface formats or programs, as to select or qualify a set of callers, enable positive identification of at least certain of the callers in the set, acquire data from callers in the set, statistically analyze acquired data, as in combination and in association with external data (time independent), and accordingly to isolate a subset of the callers with verifiable identification. That is, the external data (separate from caller-provided data) may be introduced at any of a variety of different times in relation to the caller data.

2

For example, a voice origination apparatus ay prompt individual callers who (after qualification) provide select digital data to develop a record for further processing either immediately, upon the evolution of a defined set of callers or upon the establishment of select external data. Thus, following a qualification phase, the information acquisition phase may be concurrent or consecutive with respect to the processing phase. When appropriate, abort capability allows a caller to remain "off hook" and go to analog (vocal) communication. The caller then interfaces directly with an operator.

The system of the present invention may qualify an entitled set of callers, then receive answer data in the course of the call and develop identification or designation data, sequence data and statistical data. The system may then provide data cells for storing individual data while assigning confirmable identifications to the entitled set. From the set, a subset is defined. That is, in accordance with various formats, acquired data is processed in statistical relationship, or in relation to applied external data to accomplish such functional operating formats as an auction sale, a contest, a lottery, a poll, a merchandising operation, a game, and so on.

A variety of memory techniques are used to selectively activate the voice origination apparatus. Accordingly, statistical analysis and selection can be effectively and economically accomplished with respect to a substantial set of callers who are accommodated individual communication through a telephone system.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, which constitute a part of this specification, exemplary embodiments exhibiting various objectives and features hereof are set forth, specifically:

FIG. 1 is a block diagram of a system constructed in accordance with the present invention;

FIG. 2 is a fragmentary diagrammatic representation of a storage cell format as may be developed in the system of FIG. 1;

FIG. 3 is a flow diagram of one operating format of the system of FIG. 1;

FIG. 4 is a block diagram of a form of processor or function unit as may be employed in the system of FIG. 1;

FIG. 5 is a fragmentary diagrammatic representation of a storage cell format as may be developed in the system of FIG. 1 with the processor of FIG. 4;

FIG. 6 is a block diagram of elements in an operating function unit of FIG. 4;

FIG. 7 is a diagrammatic representation of a storage cell format as may be developed in the system of FIG. 4; and

FIG. 8 is a block diagram of elements in an operating function unit of FIG. 4.

FIG. 9 is a block diagram of the connections between the CPU and remote stations.

DESCRIPTION OF THE ILLUSTRATIVE EMBODIMENTS

As required, detailed illustrative embodiments of the present invention are disclosed herein. However, physical communication systems, data formats, and operating structures in accordance with the present invention may be embodied in a wide variety of forms, some of which may be quite different from those of the disclosed embodiments. Consequently, the specific structural and functional details disclosed herein are merely representative; yet in that regard,

US 6,292,547 B1

3

they are deemed to afford the best embodiments for purposes of disclosure and to provide a basis for the claims herein which define the scope of the present invention.

Referring initially to FIG. 1, a series of remote telephone-instrument terminals T1 through Tn are represented (left). The terminals are generally similar, and accordingly, only the terminal T1 is illustrated in detail.

In the disclosed embodiment, the remote terminals T1 through Tn represent the multitude of conventional telephone terminals that are coupled to a communication facility C which may take the form of a comprehensive public telephone system for interconnecting any associated terminals T1-Tn. In accordance with the present system, the terminals T1-Tn operate through the communication facility C to be coupled with a central station D, an embodiment of which is illustrated in some detail.

Generally in accordance with the present development, individual callers use the individual telephone stations T1 through Tn to interface the station D through the communication facility C. Callers may be screened or qualified. Also in accordance herewith, the data of individual callers may be collected, correlated and tested in the station D for processing in accordance with various programs and external data. As a consequence, various objectives are accomplished. For example, a select subset of the callers may be isolated and specifically identified, or related data may be processed, or transactions may be actuated. The possibilities for application of the system are substantial and varied as will be apparent from the exemplary structure and functions as described in detail below.

In one operating process format, the public might be polled with regard to locating the specific purchasers of a defective or dangerous product. Alternatively, the public might be polled with the objective of locating persons susceptible to a specific ailment or disease. Public auctions of unprecedented participation are possible. Legal lotteries are enabled that are interesting, effective and very economical on an individual participant basis. The system also might be employed in various game formats or to automate a promotion or mail-order operation, even to the extent of including inventory control as detailed below.

In each functional operating format, the callers may be variously qualified on the basis of entitlement and may be identified for subsequent verification. The callers then may be prompted, either through the interface or externally, to provide appropriate data.

Considering the system of FIG. 1 in somewhat greater detail, it is to be understood that the communication facility C has multiplexing capability for individually coupling the terminals T1-Tn to the central station D on request. In the illustrative embodiment of the system, the communication facility C comprises a public telephone network and the individual terminals T1-Tn take the various forms of existing traditional or conventional telephone instruments.

The exemplary telephone terminal T1 is represented in some detail to include a hand piece 10 (microphone and earphone) and a panel 12 provided with a rectangular array of push buttons 14 in the conventional configuration. Of course, the hand piece 10 accommodates analog signals while the panel 12 is a digital apparatus. Generally in accordance herewith, the hand piece 10 serves to manifest analog signals vocally to the caller.

In accordance with conventional telephone practice, alphabetic and numeric designations are provided on the buttons 14. For example, several of the buttons 14 carry three letters along with a decimal digit. Specifically, the

4

button designated with the numeral "2" also carries the letters "A", "B" and "C". In that manner, the buttons 14 encompass the numerals "0-9", two symbols, and the alphabet except for the letters "Q" and "Z". Consequently, the buttons 14 accommodate the entry of decimal data, and to some extent alphabetic data.

The buttons 14 designated with symbols "*" and "#", along with the numeral "0", can be used by predetermined assignment to represent the letters "Q" and "Z" or any of a variety of other data or command components. Generally, in accordance herewith, the buttons 14 are employed to formulate digital data at the central station D in various formats determined by the instant specific use and operating format of the system.

Considering the central station D in somewhat greater detail, the communication facility C is coupled to interface a series of processing systems P1 through Pn (FIG. 1, left). Specifically, the communication facility C is connected to the processing systems P1-Pn through an associated series of automatic call distributors AC1 through ACn. Each of the automatic call distributors AC1-ACn accommodates one hundred lines from the communication facility C and accordingly, may accommodate and queue up to 100 calls.

Each of the automatic call distributors AC1-ACn may take various forms as well known in the prior art, functioning to queue incoming calls for connection to a lesser number of lines. In the disclosed embodiment, from each of the call distributors AC1-ACn, fifty lines are connected respectively to the individual data processing systems P1-Pn through an interface 20 and a switch 21. Thus, in the disclosed embodiment, each of the automatic call distributors AC1-ACn can accommodate one hundred lines, fifty of which may be active in association with one of the processing systems P.

The processing systems P1-Pn are similar, therefore, only the processing system P1 is shown in any detail. Collectively, the processing systems P1-Pn are interconnected with a command computer terminal CT, at least one interface terminal IT, at least one printer PR and an audio unit AD. The command terminal CT is separately coupled to the audio unit AD.

As represented, the processing systems P1 through Pn each contain a number of individual function units or processors PR1 through PRn. Although various other configurations and arrangements may be employed, the explanation is facilitated by including a plurality of individual function units as treated in detail below.

Considering the processing system P1, fifty lines from the automatic call distributor AC1 are connected to the interface 20, an exemplary form of which may be a commercially available Centrum 9000 unit. The interface 20 incorporates modems, tone decoders, switching mechanisms, DNIS and ANI capability (call data analyzer 20a) along with voice interface capability. Note that the interface may actually perform analysis on data. However, to preserve the disclosed embodiment manageable, major analysis is explained with reference to processors.

Generally, DNIS capability is a function of the communication facility C (composite telephone system) to provide called terminal digital data indicating the called number. ANI capability is a similar function whereby the digital data indicates the calling number with calling terminal digital signals. Both capabilities are available for use with equipment as the interface 20 and to provide control through the call data analyzer 20a.

Accommodating up to fifty independent calls on separate communication paths to the central station D, the interface

US 6,292,547 B1

5

20 is capable of providing analog (voice) signals to prompt each caller. Also accommodated are digital signals including the DNIS and ANI signals. The system contemplates the possibility of utilizing sequences of lines in rotary as well as blocking sequences of lines, the numbers for which command a particular program or operation format of a function unit as disclosed in detail below.

The interface **20** provides the connection of the fifty lines to a switch **21** which is in turn coupled to fifty function units, or processors **PR1-PRn**. As indicated above, multiple function units, or processors, are described in the disclosed embodiment to facilitate the explanation. Of course, non-parallel techniques and multiplexed operations might well be employed as alternatives. For a similar reason, as disclosed herein, each of the processors **PR1-PRn** includes memory cells for each of the callers' individual data. Development and compilation of data in such cells according to various operating formats is described below. In the disclosed embodiment, the processors **PR1-PRn** are connected collectively to the command computer terminal **CT** (incorporating a CRT display), the interface terminal **IT**, and the printer **PR**. Note that the CRT display serves to visually display data regarding select subsets as explained in detail below.

Exemplary detailed structures for the processors **PR1-PRn** are described below; however, in general, the units may comprise a microcomputer, for example, programmed as suggested above and as disclosed in detail below to accomplish specific operating formats. As an integral part of such formats, a caller may be qualified as belonging to an entitled set of persons or to accommodate specific demographic objectives. Also, callers may be designated both with respect to their significance and their identification. For example, callers may have different significance in a format, depending on the time or sequence of their call. Also, the designation of a caller may be exceedingly important in relation to the caller eventually being isolated as part of a subset, the members of whom must be accurately verified. As described below, the designations may involve multiple elements which may include: random number assignments, encryption techniques, utilization of calling numbers, identification data, sequence of call and so on to facilitate reliable verification. Note that the communication facility **C** has a customer billing structure **B** that is interfaced by the system.

On the qualification and designation of callers, the system enters a data accumulation phase during which digital data (formatted at one of the telephone terminals **T1-Tn**) is processed by one of the processors **PR1-PRn**. In general, the processing evolves a subset (at least one caller) the members of which may be verified and confirmed.

Either during the data accumulation phase, or after the processing phase to isolate a subset, a distinct operation may involve actuating the interface terminal **T1** for direct local communication between the caller and an operator at the terminal **T1**. Another distinct operation may involve actuation of the printer **PR** to provide documents in relation to the operating format, as for providing award certificates as for verifying members of an isolated subset. Also, charge slips may be generated containing at least part of the data of a particular transaction.

An appreciation of the philosophical operation of a system in accordance with the present invention may now be enhanced by considering an exemplary operation of the illustrative embodiment of FIG. 1 to isolate a subset of people who are susceptible to a particular disease or infir-

6

mity. The exemplary operation might involve a geographical area, as a large city or population center, in which a particular health problem is somewhat acute. For example, a major population center might be polled where coronary artery disease is a significant problem. Accordingly, persons most susceptible to such disease could be identified for corrective recommendations.

People of the population center could be informed of the availability of a service for statistical health analysis. Accordingly, persons interested in their individual statistical situation would be motivated to utilize the service. Specifically, individual callers would use the remote terminals **T1-Tn** to contact the central station **D** through the communication facility **C** and thereby provide personal information that would enable a statistical analysis in relation to existing data so as to isolate and inform (either real time or batch basis) those persons statistically most likely to be in need of corrective measures. In such applications, it may be important that the caller's identity be subject to reliable verification. Other applications or programs also may present a critical need for positively verifiable identification to the extent that credit card numbers and/or personal identification numbers may be employed.

An exemplary operation of the system, with regard to a specific caller, will now be treated referring somewhat concurrently to FIGS. 1, 2 and 3. As indicated above, FIG. 2 indicates a data storage format for a memory cell in an exemplary processor **PR** and now will be considered with regard to an operating format in which data is composed for a caller. Pursuing the above example, assume the existence of a caller at the remote terminal **T1** (telephone number (213) 627-2222) who wishes to pursue health-related information on the basis of statistical analysis. The caller lifts the hand piece **10** and in accordance with conventional techniques actuates the push buttons **14** to call for a select operating format, e.g. telephone number (213) 627-3333 and thereby establish communication through the facility **C** with a designated function unit in the central station **D**. Receiving the call signal, the automatic call distributor **AC1** associates the called number ((213) 627-3333, rendered available using standard telephone DNIS techniques) through the interface **20** and the switch **21** to attain connection with the specific processor, e.g. the processor **PR1** formatting the health-related program. Accordingly, the processor **PR1** cooperates with the interface **20** to cue the interface **20** to operate as a voice generator.

The sequence of operations is represented to be initiated in FIG. 3 by the "enter" block **40** which is accordingly followed by a "cue voice generator" command block **42**. If the ANI equipment is not employed, the voice generator in the interface **20** formulates speech, a representative form of which might be: "Thank you for participating in the coronary artery disease statistical analysis. Please give us your telephone number by actuating the call buttons on your telephone instrument."

Acting on the instructions, the caller would push the buttons **14** in sequence to indicate his telephone number, e.g. "(213) 627-2222". Alternatively, the interface **20** can accept the calling number ((213) 627-2222) according to its provision by standard ANI equipment of the communication facility **C**.

The resulting data signals are communicated from the interface unit **20** (FIG. 1) to the processor **PR1** for testing the telephone number as valid or entitled. Essentially, the format of a proper number prompts production of a valid or "good" signal. The test is indicated by the block **44** (FIG. 3). If the

US 6,292,547 B1

7

response is not valid or entitled, for example contains an inappropriate number of digits or has been used to a point of excess, the operation of block 46 is initiated again cuing the voice generator 30 (FIG. 1). The voice generator accordingly instructs the caller, e.g.: "You have not entered a proper telephone number. Please reenter your telephone number by pressing the appropriate call buttons." The caller is then allotted a predetermined period of time to make a proper entry with the consequence that the system moves to a test operation as indicated by the block 48 (FIG. 3). Specifically, block 48 poses the query: "Is the second try good?"

If the caller is again unsuccessful, the system purges the record as indicated by the block 50 and the call is terminated as indicated by the block 52. In an alternative mode, the processor PR1 may abort the interface and couple the interface terminal IT for direct personal communication with the caller. The interchange would then proceed, person-to-person.

If the caller responds with a proper telephone number, the operation proceeds. Specifically, the system sequences to record the response of the proper telephone number as indicated by the block 45. That is, the caller's telephone number is recorded in an assigned specific memory cell identified with the caller. The format of the cell C1 is indicated in FIG. 2. The first portion, section 53, contains a form of identification data, i.e., the caller's telephone number, i.e. "(213) 627-2222".

Note that as explained above, if the second attempt to formulate a proper number is successful, as manifest by the block 48 (FIG. 3), the response is recorded at that stage. In either case, exiting from the block 54 (FIG. 3) invokes the next operation of again queuing the voice generator as indicated by the block 56.

As an alternative format, if a selective-group polling operation is performed, or callers are otherwise to be cleared for entitlement as mentioned above, a caller may be qualified by providing a "one-time" key number. The processor PR1 may incorporate a look-up table for proper key numbers which numbers may be coded using any of a wide variety of techniques. As a simple illustrative example, the key may comprise a precise number of digits that always total a particular numerical value.

The system proceeds after the caller is qualified. Specifically, the cue to the voice generator of the interface 20 (FIG. 1) as represented by the block 56 produces a request for further information from the caller with further identification data and answer data. For example, the voice generator might request information by stating: "Please use the telephone buttons to indicate initials of your name."

The detailed operation is not represented in FIG. 3 as it is similar to the operation illustrated by the blocks 42 through 54. However, again, a proper response is registered in the storage cell C1 as illustrated in FIG. 2 by the number "53" also registered in the first section 53 of the cell.

The cycle of obtaining digital information from the caller next is repeated with respect to answer data, i.e. specific health data. For example, as illustrated in FIG. 2, the next section 58 in the cell C1 receives an accumulation of health data, including the caller's age, weight, . . . , pulse rate, and so on. Representative digital numbers are illustrated in FIG. 2.

During the course of the telephonic communication, the processor PR1 formulates identification data for the caller specifically including: the chronological sequence of the call, the assigned designation of the call, and a set of

8

acknowledgment digits for the call. Such data identification is registered in the caller's assigned cell C1 in accordance with the format of FIG. 2 being stored in sections 62, 64 and 66. Note that the data may be stored in a coded interrelationship. For example, the acknowledgment digits may be related to the call record sequence. In the illustrative example, the chronological order number of the caller is 4951. The acknowledge digits may be derived from the sequence number. For example, as illustrated, a coded relationship may be established by adding "two" to each of the individual record sequence digits. Considering the example numerically:

Adding without propagated carries:

4951
<u>2222</u>
6173

Note that the confirmation data as acknowledgement digits can be extremely important, as to communicate with an isolated member of a subset. For example, identification could be published or circulated, as by a television broadcast, then respondents checked by use of confirmation data that may be confidential.

Continuing with the above example, the call chronological sequence registered for the caller is 4951 as represented in the section 62 while the acknowledge digits are 6173 as registered in the section 66. Additionally, the processor PR1 develops an assigned designation number, e.g. designation "4951684", which is registered in the section 64, the acknowledge code or digits, e.g. 6173, being registered in the section 66. These values are formulated in accordance with conventional number techniques during the data acquisition phase. With the exemplary numerals formulated, the operation proceeds.

The processor PR1 (FIG. 1) cues the internal memory. That operation is indicated by the block 68 (FIG. 3). Thus, the processor PR1 fetches the call record sequence number, assigns a designation (if not previously assigned), and encodes the sequence number as the acknowledgment digits (if not previously accomplished). These operations are indicated by the block 70 (FIG. 3).

Next, the processor PR1 (FIG. 1) cues the voice generator in the interface 20, as indicated by the block 72 (FIG. 3) to provide information to the caller. Specifically, for example, the voice generator in the interface 20 (FIG. 1) might signal: "This transaction has been designated by the number 4951684, and is further identified by the acknowledgment digits 6173. Please make a record of these numbers as they will be repeated. Specifically, the designation number is 4951684. The acknowledgment digits are 6173. Please acknowledge this transaction by pressing your telephone buttons to indicate the acknowledge digits 6173." In various applications as those involving security, the order and acknowledgment of callers may be very important. Therefore, data for confirmation associated with the order is important.

The system next proceeds to the test mode as indicated by the block 76 (FIG. 3). If the caller provides the correct acknowledgment digits, the data is confirmed in the record as indicated by the block 80 and is registered in the cell C1 (FIG. 2). Additionally, the voice generator is sequenced as indicated by the block 82 (FIG. 3) to indicate the close of the communication and that the transaction is terminated as represented by the exit block 84.

US 6,292,547 B1

9

In the event that a caller cannot confirm his acknowledgment digits, as indicated by the block 76, a repeat operation is performed as indicated respectively by the blocks 86 and 88. Specifically, the voice generator is queued for a second instructional message. In the event that the second attempt also fails, the data is purged and the call discounted as indicated by block 90 and an exit block 92. If the second try is successful (test block 88), as indicated by the block 80, the record is perfected as indicated above.

As a result of the likelihood of a large number of calls, as described above, data cells in the processors PR1-PRn (FIG. 1) are developed with specific information indicative of a statistical sampling of the populace of concern. The data of that statistical sampling may be self-generating of specific conclusions with respect to a subset of individuals, and/or supplemental data to clearly manifest a significant subset. For example, the data may indicate a significant departure from an assumed normal characteristic. Such data, accumulated from the polling may be considered by logic comparisons in the computer 22 to select the subset of persons who should be isolated.

In addition to the self-generating conclusions available from the received data, the system may involve the introduction of external data. In the physical fitness example, such external data might take the form of national statistical data. In any event, the processing operation usually involves comparison testing which compares caller data from individual memory cells of the processors P1-Pn (FIG. 1) with test data that is supplied through the command terminal CT.

In the above example, members of the public in general were invited to use the service. A number of alternatives exist which might well impact on the statistical analysis. For example, a list may be preserved by a use-rate calculator to implement a consumable key operation. That is, a user is qualified to a specific limited number of uses during a defined interval.

As another example, callers might be restricted to the purchasers of a specific product as a medical apparatus for measuring blood pressures, heart rates, or so on. In such situations, it will be apparent that the statistical data will be somewhat distorted from an average or normal sampling. Clearly, the processors P1-Pn can be programmed to take into account such considerations. In that regard, the processors might also verify identification data proffered by a caller. Such data might take the form of a credit card number or a personal identification number. Methods for verification of such numbers using computer techniques are discussed below.

As indicated above and detailed below, the system can be programmed or formatted for use in a variety of applications. Preliminary to considering exemplary forms of such applications, reference will now be made to FIG. 4 showing an exemplary structural form for the processors PR1-PRn. From the switch 21 (FIG. 1) a pair of communication lines 90 and 91 are indicated in FIG. 4 (top left). The line 90 provides signals from a processing unit 92 while the line 91 provides signals to the processing unit 92 along with other components as represented in FIG. 4. The separate lines 90 and 92 facilitate explanation.

The processing unit 92 may take the form of a mini-computer programmed to accommodate the functions of various applications, as disclosed in detail below. As indicated above, the system may utilize a plurality of independent function units or processing units, e.g., processing unit 92, operating in a somewhat parallel configuration, or alternatively, a limited number of processors may be driven sequentially to accommodate the functional operations as described.

10

The input line 91 (upper left) is connected specifically to a qualification unit 93, a sequencer 94 and a designation unit 96, as well as the processing unit 92 as indicated above. The qualification unit qualifies access from a remote terminal T1-Tn to the processing unit 92 as described in detail below. In accordance with various applications or operating formats, the qualification unit 93, the sequencer 94 and the designation unit 96 operate preliminarily with respect to individual callers. Generally, these units qualify or test callers for entitlement, develop a sequence-of-calls record and provide forms of designations for callers that may be authenticated. As described in detail below, the units function in sequence to accomplish such operations and accordingly are each individually connected to the processing unit 92 and a buffer storage 97. Essentially, the buffer storage 97 is illustrated separately from the processing unit 92 along with the unit 93, sequencer 94, unit 96, and so on, again in order to facilitate the explanation. Similarly illustrated are a memory 98 (with cells C1-Cn), a look-up table 103 and a clock 105.

Considering the processor of FIG. 4 in further detail, the qualification unit 93 (upper left) is connected to a look-up table 99 and a use-rate calculator 100. The designation unit 96 (top center) is connected to a random number generator 101 and an encryptor 102.

In view of the above structural description of the system, consideration will now be given to certain specific applications in relation to the operation of the system. In that regard, the operation of the system will next be considered to automate a mail-order facility.

Assume that- a caller at a terminal T1 (FIG. 1) dials a specific number to identify a mail order interface with the system of FIG. 1. For example, assume the telephone number "(213) 627-4444" for such an interface. Accordingly the caller dials the number at the remote terminal T1. As a result, the communication facility C couples the terminal T1 through the automatic call distributor AC1, the interface 20 and the switch 21 to a select processor PR1 identified and programmed for a mail-order operating format. Note that the communication facility C provides the dialed number ("(213) 627-4444") to the processing system P1 through well known telephonic equipment DNIS. Accordingly, a program is selected to execute the mail order interface.

As a preliminary action, a voice responder in the interface 20 might be cued by the processing unit to identify the mail-order house and indicate that the order will be taken by computer. Either before or after qualification, the caller might be advised that if he prefers to communicate directly with a person, or needs such contact at any point in the communication, he may accomplish it simply by pushing the asterisk button (*) at the terminal T1. Such action forms an abort signal that is detected by the processing unit 92 to transfer the communication to the interface terminal IT (FIG. 1). Alternatively, the customer may be asked (by voice cue) to provide detailed information as name, address, etc. which is recorded for later processing.

After the preliminary information is supplied to a caller, the qualification phase is initiated. For example, the interface 20 might actuate the terminal T1 to announce: "Please indicate the type of credit card you will use for your purchase by pushing the button number 'one' for Mastercharge, 'two' for . . ."

The caller's response, indicating a specific credit card, will be stored in a data cell; however, the data is developed initially in the buffer 97. The format and data for the present example (in the buffer 97) will be explained with reference

US 6,292,547 B1

11

to a storage block format **104** as illustrated in FIG. **5**. The first data block **130** accordingly registers a digit to indicate the card that will be used to support the caller's purchase.

Using voice prompt, the interface **20** next instructs the caller to use the telephone buttons to indicate his credit card number and the expiration date of the card. That data is stored in the register **104**, specifically in the blocks **132** and **134** as illustrated in FIG. **5**.

Next, the caller is asked for his customer number, as it may appear on his catalog. That number is stored in a block **136** of the block format register **104**. Note that the caller may not be identified in the files of the mail-order house and in that event, the operation may be shifted to a manual operation to be continued through the interface terminal **IT** (FIG. **1**) as explained above. For a television-initiated mail-order transaction, other numerical codes might be employed as to key into broadcast schedules. For example, a code might be used to indicate program times and thereby enable evaluation of the productivity of such program times. Such operation may be performed during the designation-phase as described below.

To continue with the explanation of the automated format, assume that the customer has a file customer number and that it is stored in the block format register **104** along with his credit card number and expiration date. From that location, the data is checked by the qualification unit **93** (FIG. **4**) for propriety as part of the test or qualification phase of operation. The check or test is in two stages and both are performed during an interval designated **t1**, the qualification unit **93** operating under control of the processing unit **92**.

First, the data is verified as representing valid and proper data formats for the customer's number, the credit card number and expiration date. The second operation involves consulting a so-called negative list to assure that the identified card and customer's number have not been cancelled, as for example in the case of credit cards that have been lost or stolen. Detailed structure for such tests is described in the parent case from which this case continues and may be incorporated in the qualification unit **93**.

With the successful completion and verification of the preliminary data in the block format register **104**, the qualification phase of operation is concluded and the system next interfaces with the caller to acquire and process data for a specific order of merchandise. Note that in the mail-order operating format, the sequence of the call is not normally significant. However, the sequencer **94** may log the time during a period **t2** if deemed worthwhile.

Somewhat as described above in relation to the initial operating format (health poll), the voice generator in the interface **20** prompts the caller through a series of exchanges that load the storage block format register **104** with a merchandise order. Thus, as purchase items are confirmed, the register **104** is loaded as exemplified by the blocks **140** and **142**. The interchange continues until the customer indicates he does not wish to order any additional items. The system then operates the designation unit **96** (FIG. **4**) during the interval **t3** to develop and announce the acknowledgement digits as stored in the block **144** (FIG. **5**). The acknowledgement digits serve to identify the order both for the caller and the mail-order house. Accordingly, tracing is facilitated. The data (FIG. **5**) is then transferred from the buffer **97** (FIG. **4**) to a select memory cell **C1-Cn**.

During the next interval **t4**, the processing unit **92** (FIG. **4**) isolates data of the cells **C1-Cn** to facilitate the mail-order process. In that regard, the processor **92** may incorporate structure and processing techniques as disclosed in the parent case.

12

Of the wide variety of other operating formats and applications in accordance herewith, further examples will now be described with reference to the systems of FIGS. **1** and **4**. However, from a consideration of the operating formats treated below, it will be apparent that certain structural elements have reoccurring significance in the combination. Specifically, such elements include the structures: (1) utilizing the called number to select a specific operating format, (2) for screening or selecting callers who will be accepted based on various criteria, (3) for designating callers in a manner to enable subsequent positive identification and (4) various processing aspects of the data manipulations including the provision of at least a portion of certain ID data provided directly from the telephone apparatus. With respect to the data processing, distinctive elemental features include the utilization of external data not available during the interval of gathering data, the utilization of an interrelationship between the composite data collected during a data acquisition period, and the operation of utilizing time or sequence of callers to accomplish a subset.

As the next illustrative operating format, an instant lottery system will be described. Accordingly, assume the existence of a legalized state lottery accommodated by the telephone system utilizing a pay-to-dial number ("(213) 976-xxxx") and restricted to a limited number of uses for defined intervals of time. For example, a person might be entitled to play the lottery a limited number of times or to the extent of a limited dollar value during a predetermined interval.

From the terminal **T1** (FIG. **1**) the caller would actuate the push buttons **14** to establish contact with the processing system **P1** coupling would be through the communication facility **C**, the automatic call distributor **AC1**, the interface **20** and the switch **21** as described in detail above. The initial operation then involves qualification of the caller to participate in the instant winner lottery. Again, ANI or caller interface techniques may be employed. If the caller is involved, the interface **20** is actuated by the qualification unit **93** during the operating interval **t1** to instruct the caller: "Please key in your telephone calling number". As indicated above, an alternative involves the system simply registering the calling number on the basis of its provision by ANI equipment.

In any event, after the caller's telephone number is registered, the instruction is given: "Participation in instant winner lottery is for persons over twenty-one years of age. Accordingly, please key in the year of your birth". A driver's license or credit card number may be similarly registered to confirm age. Alternatively, the combination of telephone number and date of birth could be used. In any event, the caller's data is registered and the qualification unit **93** then functions to test the data as provided. Specifically, the caller's telephone number is checked in a look-up table **99** to determine whether or not it is a proper and currently valid number for use in the lottery. Concurrently, the number is checked by the use-rate calculator to determine the number of times it has been used in excess of a predetermined number of calls or dollar value to participate in the lottery during a current interval of monitoring.

If the data indicates a qualified caller, the system proceeds to the next phase of designating the transaction. Note that the sequence is not significant in this operating format with the consequence that the interval **t2** and the operation of the sequencer **94** may be bypassed. Rather, the designation unit **96** operates during the interval **t3** to provide the caller with a designation for the current transaction and if applicable, updates the file as to current use or dollar value remaining for the caller's use. As explained above, the random gen-

US 6,292,547 B1

13

erator **101** with or without the encryptor **102** may be employed to create an identification number which may include an encrypted form of the caller's telephone number. Accordingly, data for the transaction is established in the buffer **97** then set in a cell of the memory **98** (FIG. **4**). Specifically, the completed data cell format might be as follows: Telephone No.—Birth Year—Designation—Random No.

The system next functions to generate the random number as indicated above which will then be tested against a series of other numbers to determine whether or not the caller is a winner. In that regard, elements in the processing unit **92** which accomplish the operation are illustrated in FIG. **6** which will now be considered in detail.

A random number generator **160** functions on command to provide a three-digit number. With the consummation of a call, the random number generator **160** is actuated to provide the caller's random number in a selected caller cell **162**. From that location, the caller's random number is compared with numbers from a register **164** by a comparator **166**. The numbers in the register **164** were previously passed through a gate **174** from the generator **160**. In the event of coincidence, the comparator provides an output "yes" signal to a line **168**. Conversely, the failure of coincidence prompts the comparator **166** to provide a "no" output to a line **170**. Essentially, a "yes" indicates a win while a "no" indicates the caller has lost.

The elements of FIG. **6** provide a random operating format to determine winners on a somewhat statistical basis; however, the system increases the probability with the passage of time when no win occurs. In that regard, at the outset of an operating cycle, the random number generator **160** provides a random number that is passed through the gate **174** to the register **164**. In the exemplary format, a three-digit number would be provided. At that stage, the caller's random number, from the cell **162**, would be compared with the single number in the register **164** by the comparator **166**. However, with the passage of time, calls are tallied or time is metered by a counter **178**. Accordingly, upon the attainment of a predetermined count, the gate **174** is again qualified to enter another number in the register **164**. Accordingly, an increasing set of numbers are held in the register **164** for comparison with each caller's number. Of course, the more numbers in the register **164**, the higher probability of a caller winning and that relationship depends upon the duration or number of calls since the last winner.

Either a win or a loss as indicated within the processing unit **92** (FIG. **4**) prompts the interface **20** to respond appropriately to the caller announcing his results. If there is a win, the designation may be reinforced and additional identification may be taken as explained above. Of course, if the prize simply involves a credit on the caller's telephone bill or his credit account, identification and designation become less critical considerations.

In the event of substantial awards to be claimed, the processing system **P1** (FIG. **1**) may actuate the printer **PR** to produce a positive identification of the winner, which document may be redeemed only by the caller providing the assigned designation along with confirmation of his identification data.

Generally in relation to awards, the processing unit **92** may also utilize a random number format for determining the significance of awards. That is, a random number may be actuated to provide numerals from one through twenty, for example, the magnitude of the number generated for a caller indicating the significance of his award. Normally such

14

information would be provided to the caller and registered in his memory cell.

With respect to memory cells generally, it is to be noted that actuated memory cells may be cleared for callers who are not winners. Accordingly, a limited number of memory cells store the subset of winners for subsequent confirmation processing and so on.

As another operating process format in accordance with the present invention, consider an auction sale. As disclosed herein, the auction format is associated with television as, for example, in the form of a cable channel for dedicated use during an interval of an auction sale.

Preliminarily, in accordance with the disclosed exemplary format, persons wishing to participate in the auction sale would make preliminary arrangements involving utilization of the system to establish authorization data for qualified bidders in cells **C1**–**Cn** of the memory **98** (FIG. **4**). In an alternative format, the bidders could simply be qualified immediately before bidding, as on the basis of a charge-card number or other identification.

Generally, it is contemplated that callers are coupled into the system only during the bidding on specific items of merchandise. Accordingly, some prequalification may be desirable to facilitate the rapid accumulation of a bidding group with the introduction of a unit of merchandise.

In accordance with the disclosed format, an auctioneer conducts the sale in a somewhat traditional manner, recognizing that he is interfacing a relatively large audience through the system of the present invention and with a television connection. Specifically, the auctioneer is cued as to audience reaction by a monitor incorporated in the command computer terminal **CT** (FIG. **1**). Essentially, the auctioneer is given an abstract or summary of the relative bidding as the auction progresses. In one format, the caller sees the auction on a television receiver. That is, the monitor may be covered by a television camera to inform the audience and particularly interested bidders. Consider the detailed steps of the operation.

As the auctioneer announces the next item for sale, it is televised to potentially interested bidders. In addition to being informed of the merchandise, potential bidders might also be reminded of the telephone number for participating in the auction. Accordingly, any interested person at a remote terminal **T1**–**Tn** may dial the auction number and obtain access to the processing systems **P1**–**Pn**. The caller would have a television set available, tuned for example to a cable channel.

Any preliminary qualification as indicated above will then be performed along with any appropriate designation. With regard to the designation, unless callers are identified as part of the qualification step, the designation unit **96** (FIG. **4**) assigns a limited-digit number to individual callers for use by the auctioneer interfacing the command computer and terminal **CT**. Further designation and sequencing as disclosed herein also constitute part of the process. To the extent that qualification and designation operations may be performed, the operations are performed as described above with reference to FIG. **4** by the qualification unit **93** and the designation unit **96**. Of course, any of the safeguards and limitations as described herein may be employed as deemed appropriate for an auction format.

After the preliminaries, the auctioneer initiates the bidding with respect to a particular item that is observed by the callers on a television receiver as through a cable channel. Note that the audio may be variously-coordinated through the telephone communication facility **C** and the audio chan-

US 6,292,547 B1

15

nel of the caller's television. In a simple format, after an introductory phase, communication to callers with respect to the bidding is provided through the television link. Alternatively, the audio unit AD (FIG. 1) may be employed.

Essentially, the auctioneer initiates the bidding by stating an initial value for the opening bid. Callers are invited to bid by actuating the push buttons 14 (FIG. 1). For example, the auctioneer may invite an initial bid of one hundred dollars asking callers to so bid by entering an asterisk (*) by punching the button so designated. In accordance with one operating format, cells in the memory 98 (FIG. 4) are actuated to register the bidding number in identified relationship with several calls. Note that although a record may be desirable, it is not usually necessary to record all bids, particularly at initial bidding figures. In any event, the individual processing units, e.g. unit 92 in individual processors PR1-PRn are interconnected (FIG. 1) and operate to select the final and key bids.

After attaining the initial bid, the auctioneer may invite further bidding by seeking a bid of two hundred dollars or any bid. Such a bid might be accomplished either by punching the asterisk button to attain the solicited bid, or by using number buttons to enter a different bid, e.g. two hundred fifty by buttons "2", "5" and "0". Again, cells of the memory 98 are actuated to record select bids (sequence) at the higher value.

The status of the bidding is presented to the auctioneer by the monitor of the command computer terminal CT (FIG. 1). Specifically, the auctioneer is provided an indication of the number of bidders at each level. If a sizeable number of callers bid at a specific value, the auctioneer may wish to advance the price significantly for the next round of bidding. Thus, the auctioneer proceeds until a small group of remaining callers are addressed. Note that the display of the command terminal CT (FIG. 1) may also inform the auctioneer of fresh bidders.

As the selection process proceeds, signals from the clock CL (FIG. 1) are introduced to indicate the sequence of bidders. For example, assume the bidding has proceeded to a stage where only three bidders remain active. The auctioneer is informed by the command terminal CT of the order in which the callers made their bids. The sequence is also of record in the cells of the memory 78 (FIG. 4) to indicate the sequence in the event that the final bid involves more than one caller. Of course, the first caller to respond with a bid would have priority in the purchase.

Normally at the conclusion of the bidding on a particular item, the contents of the cells in the memory 98 would be purged with only the final bidders being held in general memory within the processing unit 92. Of course, it is important to maintain a record of back-up bidders in the event the sale is not consummated with respect to the first of the highest bidders. That is, a subset of the highest bidders is preserved for each item of merchandise in the event that the highest bidder fails to qualify or the sale otherwise cannot be consummated. Of course, a distinct advantage of the system is the ability to accommodate a vast auction participation group for items of substantial value and as a consequence the distillation of a subset of callers is exceedingly valuable information.

To consider another operating format in association with the television media, a system will now be described whereby television viewers participate on a real-time basis in a game show for prizes. The ability to involve television viewers in a program has the potential of expanding program interest along with the expanded participation.

16

Game shows in accordance herewith may take any of a wide variety of forms as several well known programs in which studio contestants compete for prizes. In utilizing the system of the present invention to involve remote participants, it may be desirable to preliminarily qualify and designate callers as explained above. Specifically, prior to participating in an actual game show, interested participants interface the system as depicted in FIG. 1, and in the course of an exchange as described above, the qualification unit 93 and the designation unit 96 cooperate with the processing unit 92 to accomplish preliminary data on potential participants in cells of the memory 96.

Various games will involve different screening processes and clearances. For example, a child's television game format may require parental clearance and in that regard written communication may be required for approvals. Such approval may require the assignment of a personal identification number to the child player as qualifying identification data.

As explained above, clearances may be perfected through the look-up table 99 (FIG. 4) in association with the qualification unit 93 or approvals through a consumable key step may be extended to incorporate functions of the processing unit 92 in association with the memory 98. For example, if qualification simply involves a check-off operation, the look-up table 99 will normally be employed. However, in the case of preregistration for a participant, as in the case of the auction sale, the memory 98 is involved with the qualification unit 93 through the processing unit 92 to establish a data cell C1-Cn for each qualified participant. Thus, each potential participant to be qualified interfaces with the processing unit 92 during a preliminary interval of operation to provide data in one of the cells C1-CN to facilitate qualification for participation during a real-time game show.

At the time of the show, callers are qualified simply by reference to their assigned memory cell data for a verification. Thereafter, the caller's exchange information to supplement their data as with respect to the play which follows. Specifically for example, a caller might select a studio audience participant with whom the caller is to be allied. The interface operation may be essentially as described above wherein a voice generator in the interface 20 (FIG. 1) provides signals which activate the remote telephone unit to speak the instruction: "If you wish to play with Player No. 1, please push button No. 1; if you wish to play with Player No. 2, please push button No. 2 . . . and so on". The caller may also be instructed to indicate the extent of a wager. For example, "Push the number button indicating the points you wish to risk".

The participant data is stored in an assigned cell of the memory 98 (FIG. 4) for the caller and as the game proceeds, the processing unit 92 tallies the caller's score. Scores are interrelated between individual processing units to actuate the terminal CT. Thus, individual accounting occurs for each of the calling participants on an on-line basis dependent upon the success of the studio players and their association with the callers. On-going accounting data may be provided at intervals or real time by the recorded voice to each contestant.

According to the described format, after an interval of play, the processing units, as the unit 92 (FIG. 4), operate to isolate a subset of caller-players who have amassed the highest scores. Of course, various arrangements may be provided for awarding prizes to the select subset of winning callers.

US 6,292,547 B1

17

The above format involves a real-time game show with an on-line operating format. A somewhat similar format involves nonreal-time operation and in that sense, callers may interface with the system of the present invention before and after the show; however, not primarily during the show. Such a show might involve a quiz for callers based on their ability to perceive and remember occurrences within the show. Preregistration may be employed, however, is not essential. Rather, callers may call after the broadcast of a program. In that event, sequence or time clocking may be very important to limit or control individual interfaces to a specific time or geographic "window". That is, as suggested above, allocation-routing equipment and techniques may be employed in various of the formats to window callers. With the system, callers are screened or qualified at the time of a call, identified in a particular calling sequence, designated for identification and quiz answers are given for subsequent processing. Alternatively, players could participate by providing their credit card for billing or be billed through the "pay-to-dial" network. Consider an exemplary format.

A key to participation in the game show may involve the purchase of a particular product. For example, a person desiring to participate may purchase a product which carries a concealed key number. The number serves as a caller's key to participation in the game show.

In accordance with the disclosed operating format, after watching the broadcast of a television show (possibly a serial episode) the participant actuates the push buttons 14 at one of the remote terminals T1-Tn to accomplish an interface communication with the select operating format. For example, the caller may actuate the buttons 14 for the station number "277-7777" which identifies the game format of current description.

Assume responsive operation of the communication facility C to couple the caller through the automatic call distributor AC1 to the interface 20. Upon establishing a connection, the interface 20 receives the caller's telephone number through ANI equipment and a data cell in the memory 98 (FIG. 4) is assigned to the caller. Specifically, for example, associative coupling is provided for the caller through the switch 21 (FIG. 1) to the processor PR1 containing the memory 98 (FIG. 4) and a cell C2 assigned to the caller. A block format 200 is illustrated in FIG. 7 indicating the data that is developed in the cell C2. At the outset, the caller's telephone number is stored in a section 201 followed by uses/month in section 202.

Next, the caller is greeted and requested to give the key number entitling him to participate in the game show. The instruction constitutes an initial action to take place in an interval of qualification during the time t1. The caller actuates the buttons 14 providing digital representations to the qualification unit 93 (FIG. 4) and the look-up table 99 is consulted. Note that the table 99 may be a large, shared unit that tabulates each of the key numbers and accounts for their use. If the caller has identified a proper key number, the process proceeds and the key number is accounted, i.e. incremented or decremented to the limit of use if any. Alternatively, a repeat information operation may be requested as described in detail above.

As a further check during the qualification stage, the use-rate calculator 100 may function to determine whether or not an excessive number of calls have originated from the designated number. Thus, consideration involves calls or value with reference to a predetermined period of time. Again, a shared calculator may be used or addressing may obtain selectivity on the basis of calling numbers. If a large

18

number of calls have originated from a single telephone terminal, a fraudulent situation may be suggested. Assuming no such indication occurs, the number of uses is registered in a section 200 (FIG. 7) and the operation proceeds from the interval t1 to interval t2.

During the interval t2, the sequencer 94 registers the precise time of the call in the buffer storage 97, specifically in a section 204 as illustrated in FIG. 7. With the entry of such data, the system passes from the operating interval t2 to t3.

The caller is next asked to identify himself in some specific manner. For example, the caller may simply be asked to provide the year of his birth. Alternatively, somewhat comprehensive information may be taken as in the form of drivers' license numbers, social security numbers and so on. Of course, such data may be employed for subsequent identification of the caller and, accordingly, is registered in the buffer storage 97 (FIG. 4). Specifically, identification information is registered in section 206 of the block 200 as shown in FIG. 7.

In addition to receiving identification information from a caller, the system assigns a designation to the caller; Specifically, the random number generator 101 (FIG. 4) provides a number which may be encrypted along with other identification data as the caller's personal identification to provide a numerical designation that is registered in the storage 97. Specifically, the designation is stored in a section 208 as illustrated in FIG. 7. With the designation operation complete, the interval t3 terminates initiating the data accumulation phase which occurs during an operating interval t4.

At this juncture, operating elements within the processing unit 92 will be considered in relation to an explanation of the manner in which select questions are provided to a caller and his answers received and recorded for subsequent processing to determine winners.

Preliminarily, reference will be made to FIG. 8 showing elements involved in the operating format which are contained in the processing unit 92 (FIG. 4) in association with the memory 98. To avoid confusion, the elements identified in FIG. 8 are designated by fresh numerals.

To accommodate the exemplary operating format, a dramatic program might be recorded preparatory to the television broadcast. A substantial number of questions would then be formulated based on the dramatic program. For example, "How many people were present when the will was read?"

It is contemplated that the dramatic program would be broadcast to different geographical segments of the country during different time intervals. To accommodate the different time intervals, it is proposed to utilize different questions for each geographic segment. That is, the basic format can remain the same, only the questions change by time zone to avoid study and collaboration on questions as a result of time shifts. A question propounded to a Chicago caller should not be repeated to a Los Angeles caller. In any event, callers might be given three questions randomly drawn from a pool serving one geographic segment and three questions drawn from a different pool serving another geographic segment.

The signals for prompting a voice generator are registered in memory sections MS1 through MSn. Each of the memory sections MS1-MSn is served by an address input AI1-AIn respectively. Similarly, the address inputs AI1-AIn are instructed by random number generators NG1-NGn, in turn actuated by decoders DE1-DEn. Consider the operating sequence of the memory MS1 as an example.

The decoder DE1 is responsive to telephone calling numbers (provided by ANI equipment) indicative of a

US 6,292,547 B1

19

particular geographic area. Note, for example, that area code numbers afford an effective geographic classification of callers which is very useful in many formats or processes of statistical analysis in accordance herewith. Note that geographic (or other) classification in accordance herewith is also accomplished by the called numbers provided. Each of several television stations would solicit calls for different numbers as a result, either by DNIS or call channeling. Select processors would be reached through the interface units, e.g. interface **20** FIG. 1. In operation, the decoder DE1 determines a call is from a specific geographic area and accordingly provides a signal to actuate the random number generator NG1. As a consequence, the random number generator NG1 provides a series of three random numbers in the form of addresses for the memory MS1. That is, the addresses may simply comprise three alphanumeric bits supplied to the address input AI1 to prompt the provision of three sets of voice generator signals for announcing the three questions in sequence. For example, the first question might be as suggested above: "Push the button on your telephone for the number of persons present in the room when the will was read".

The voice generator signals are supplied from the memory MS1 (within the processing unit **92**, FIG. 4) to the interface **20** (FIG. 1) which generates audio signals to actuate the caller's hand piece **10**. Accordingly, the caller is instructed to answer three questions, the responses being recorded in a section **210** of the data block **200** (FIG. 7). Note that the clock **105** (FIG. 4) may be utilized to limit the response period allowed each caller.

As indicated above, to accommodate broadcast of the program in a different time slot for a different geographic area, the decoder DEN (FIG. 8) actuates the random number generator NGn to address the memory MSn to provide three different questions as a result of a random selection. Accordingly, within a time or times (perhaps limited and offset) after the conclusion of the program, a substantial number of callers are accounted for in cells of the memory **98** and similar units of the composite system. The cells indicate sequences of calling and also may contain billing data where appropriate. That is, pay-to-dial operations avoid the need for billing, yet it may still be made of record.

Subsequent to the data accumulation phase of operation, the processing unit **92** (and its equivalents) is actuated during an off-line processing interval to isolate the subset of callers correctly responding to the questions. In accordance with one format, the subset of successful callers may be reduced to a sub-subset as by a random computer "draw" to define a group of significant winners. That is, a random number generator may be employed as explained above.

As an alternative to subsequent processing, the system may inform callers of their success during the course of the interface telephone call. That is, callers might simply be informed by cuing the voice generator: "Your answers are correct and in accordance with the program game, you will now be entered in the sweepstakes draw for the prize . . ." Thus, the format defines a subset then further selects a sub-subset of winners. In any of the various formats, the status of the analysis can be televised by selecting a camera focused on the interface terminal IT.

Still another operating format for the system takes the form of polling operations to determine opinion or facts. An illustrative form of the format is disclosed below again in association with a television broadcast.

Generally, the illustrative polling format is contemplated in association with a television broadcast addressing a

20

matter of current interest as, for example, a political issue or election. A master of ceremonies propounds questions to a viewing audience, many of whom are on-line through an interface of a system of the present invention. The master of ceremonies or commentator instructs the callers who are regulated and controlled by the system of the present invention to provide digital data which the system processes to inform the commentator as with regard to subsets of callers. For example, the commentator may be statistically informed as to the numbers of callers holding specific views. Consider a specific exemplary operating format.

Assume the existence of a system in accordance with the present invention installed for use in association with a television broadcasting facility. Of course, various previous arrangements could be involved; however, according to one arrangement a commentator simply invites members of the viewing audience to call a specific number and express their views with respect to a specific issue. Callers located at terminals T1-Tn (FIG. 1) activate the terminals to accomplish an interface with one of the processing systems P1-Pn as explained above. Note that the processor (or the interface **20** may involve operation of the qualification unit **93** (FIG. 4) to prevent callers from loading the poll. That is, to prevent multiple calls from a single terminal that would distort a poll, the qualification unit **93** registers calls in association with the use-rate calculator **100**. Interfacing a specific processor, callers are screened by the qualification unit **93** (FIG. 4). In such a poll, it may be important to control the sampling group on a statistical basis. For example, it may be desirable to limit callers from each of several geographic areas. Accordingly, by the use of ANI equipment, the caller's telephone number is provided to the qualification unit **93** during the preliminary interval t1, and a determination is performed with regard to the number of involved callers from the geographic area using the look-up table **99**. On attaining a full quota from a specific area, a subsequent caller may be informed that the lines are full. Alternatively, the caller may be requested to provide his telephone number for screening in the event ANI equipment is not available.

The caller may be requested to provide additional information so as to poll a balanced group. For example, a caller might be asked questions concerning age, political registration and so on by prompting the interface unit **20** to pose audio questions and testing the digital results through the qualification unit **93** as with reference to the look-up table **99**.

As indicated above, in the event that the broadcast television program is one of a series, it may be desirable to limit the extent of participation over a period of several programs. Accordingly, the use-rate calculator **100** (FIG. 4) may be employed in association with the qualification unit **93**. That is, if a calling number has participated in a prior poll, it may be denied access for a subsequent poll or its data not counted. Such operation would involve the use-rate calculator **100** in association with the qualification unit **93** performing logic tests to actuate the voice generator of the interface **20** for providing an appropriate interchange with a caller.

With the screening or qualification of a select group of callers, the sequencer **94** (FIG. 4) may or may not be involved to identify the order of callers. Also, the designation unit **96** may or may not be involved in view of the fact that for many polls there is little interest in subsequently identifying callers.

In the poll-format operation of the-system, it is important to provide a capability of defining select intervals during

US 6,292,547 B1

21

which callers may provide data. In one arrangement, with the consummation of a communication interface between a caller and a processor unit, the audio of the-television broadcast is keyed from the audio unit AD through the switch 21 (FIG. 1) for communication to the caller.

With a multiplicity of callers in interface relationship with the processors PR1-PRn as function units, a polling question is stated, for example: "If you favor expanded trade with . . . at the tone press button one; if you do not, press button two".

To control the interval of polling, the command computer terminal CT (FIG. 1) is actuated to enable the callers timely access to the processors.

At the expiration of a polling interval, the interfaces may be terminated or additional questions may be propounded. In any event, subsequent to the data-gathering phase, the bulk data is supplied to the command computer terminal CT incorporating computing facility to isolate subsets for communication by the broadcast. Accordingly, an effective on-line poll can be conducted with statistical sampling control and prompt display of responses.

As explained above, the arrangement of the function unit (or units) may be variously embodied in a single processor or many processors, depending on various considerations as time sharing, multiplexing, paralleling and so on. The systems as described above embody the components bulked together in one location. However, components of the system could be spaced apart geographically, using dedicated lines or polling techniques. An illustrative embodiment is shown in FIG. 9.

Call distributors CD1-CDn are at different geographic locations along with associated interface units IA1-IA n and IB1-IBn. Each of the interface units, as unit IA1 is coupled to a central processor 251 as indicated by lines 252, 254, 256 and 258. Each of the lines may take the form of a dedicated telephone line or a polling telephonic coupling.

In the operation of the system of FIG. 9, the call distributors CD are coupled to a telephonic communication system and accordingly allow the interface units I to provide interface communication between the central processing unit 251 and a multitude of remote terminals T1-Tn as illustrated in FIG. 1. With data accumulated in the cells, it may be variously down loaded as to a central processing station. Thus, the distributed-component system is capable of executing the various formats as explained above with reference to the illustrative structure.

In view of the above explanation of exemplary systems, it will be appreciated that other embodiments of the present invention may be employed in many applications to accumulate statistical data, process such data, and define subsets of callers of concern. While certain exemplary operations have been stated herein, and certain detailed structures have been disclosed, the appropriate scope hereof is deemed to be in accordance with the claims as set forth below.

What is claimed is:

1. A control system for use with a communication facility including remote terminals for individual callers, wherein each of said remote terminals comprises a telephonic instrument including a voice communication device, and a digital input device in the form of an array of alphabetic numeric buttons for providing caller data signals, said control system comprising:

a processor unit for processing said caller data signals supplied by individual callers via said remote terminals;

interface structure for interfacing said communication facility to said processor unit wherein said interface

22

structure receives data signals prior to the close of communication with the caller, including called number data signals (DNIS) and calling number identification data signals automatically provided by said communication facility and said caller data signals supplied by the individual callers via said remote terminals;

voice generator for providing prompts to said individual callers in response to which said individual callers provide said caller data signals, said caller data signals including caller qualification data for qualifying said individual callers;

testing caller customer number data as part of said caller qualification data supplied by the individual callers as at least certain of said caller data signals against a file of stored customer number data;

means for controlling said processor unit in accordance with said called number identification data signals (DNIS) to process at least certain of said caller data signals in accordance with a select format from a plurality of formats identified by said called number identification data signals (DNIS); and

a switch that transfers the individual callers to a manual operation in the event the individual callers do not qualify during the testing step.

2. A control system according to claim 1, wherein at least certain of said individual callers at certain of said remote terminals are also subject to qualification based on said calling number identification data signals.

3. A control system according to claim 1, wherein said processor unit generates data identifying an order and provides the data to the individual callers.

4. A control system according to claim 3, wherein the data identifying the order is number data.

5. A control system according to claim 4, wherein the number data is provided as acknowledgement data to the individual callers.

6. A control system according to claim 4, wherein the number data is provided in chronological sequence.

7. A control system according to claim 1, wherein the qualification data is indicative of a consumable key.

8. A control system according to claim 1, wherein the caller data signals include item number data.

9. A control system according to claim 1, wherein the caller data signals include a second form of identification data.

10. A control system according to claim 1, wherein said file of stored customer number data includes negative file data.

11. An analysis control system for use with a communication facility including remote terminals for individual callers, wherein each of said remote terminals comprises a telephonic instrument including a voice communication device and digital input device in the form of an array of alphabetic numeric buttons for providing data and wherein said communication facility has a capability to automatically provide terminal digital data, indicating a calling telephone number, said analysis control system comprising:

interface structure coupled to said communication facility to interface said remote terminals for voice and digital communication and including means to provide caller data signals representative of data relating to said individual callers provided from said remote terminals or automatically provided by the communication facility with respect to the remote terminals prior to the close of communication with the callers including caller personal identification data entered by the caller

US 6,292,547 B1

23

via the digital input device and said terminal digital data indicative of a calling telephone number;

record testing structure connected to receive and test said caller data signals indicative of said terminal digital data representative of said calling telephone number and said caller personal identification data against previously stored terminal digital data and caller personal identification data;

storage structure for storing certain of said data provided by said individual callers including item data for ordering particular items; and

analysis structure for receiving and processing said caller data signals under control of said record testing structure.

12. An analysis control structure according to claim 11 wherein said callers further provide credit card number data as caller data signals.

13. An analysis control system according to claim 12, wherein said individual callers further provide expiration data with respect to said credit card number data as caller data signals.

14. An analysis control system according to claim 13, wherein said individual callers receive authorization on-line.

15. An analysis control system according to claim 14, wherein the credit card number data is received as billing data.

16. An analysis control system according to claim 14, wherein said analysis structure further comprises a processor that generates data identifying an order and provides at least certain of the data to the individual callers.

17. A control system according to claim 11, wherein said analysis structure further comprises a processor that generates data identifying an order and provides at least certain of the data to the individual callers.

18. A control system according to claim 11, wherein the data identifying the order is number data.

19. A control system according to claim 18 wherein the number data is provided as acknowledgement data to the individual callers.

20. A control system according to claim 18 wherein the number data is provided to the individual callers in chronological sequence.

21. A method for implementing a service for controlling an order of an item or items for use with a communication facility including remote terminals for individual callers, wherein each of said remote terminals comprises a telephonic instrument including a voice communication device and a digital input device in the form of an array of alphabetic numeric buttons for providing data, said method comprising the steps of:

interfacing said remote terminals for voice and digital communication and receiving data signals prior to the close of communication from callers at said remote terminals including said caller data signals developed by said remote terminals;

providing prompts to said individual callers in response to which said individual callers can provide said caller data signals including caller qualification data for qualifying callers;

receiving from said callers customer number data in addition to one other form of identification data as a part of the caller qualification data;

verifying said customer number data and said other form of identification data entered by said callers;

24

receiving from said callers order data including item data entered by said callers via said digital input device;

receiving from said callers additional data relating to said item data;

processing said caller entered data to implement said order; and

providing individual callers with computer generated data to identify said order for individual callers.

22. A method according to claim 21, wherein the computer generated data identifying the order is provided to the individual callers as acknowledgement data.

23. A method according to claim 21, wherein the computer generated number data is provided to the individual callers in chronological sequence.

24. A method according to claim 21, wherein the data identifying the order identifies the order for a mail order house.

25. A method according to claim 21, wherein data identifying the order facilitates tracing.

26. A method according to claim 21, further comprising the step of:

receiving called number identification signals (DNIS) automatically provided by said communication facility as a part of said data signals.

27. A method according to claim 20, further comprising the step of:

receiving calling number identification signals automatically provided by said communication facility as a part of said data signals.

28. A method according to claim 21, wherein the receiving step includes receiving calling number identification signals automatically provided by said communication facility as a part of said data signals.

29. A method according to claim 21, wherein in response to prompts said individual callers enter credit card data.

30. A method according to claim 29, wherein in response to prompts said individual callers enter data on a type of credit card.

31. A method according to claim 29 wherein said callers enter credit card number data as credit card data.

32. A method according to claim 31 wherein in response to said prompts said callers enter credit card expiration data as credit card data.

33. A method according to claim 32, further comprising the step of:

verifying on-line the credit card number data and the credit card expiration data.

34. A method according to claim 31, wherein said credit card number data is received as billing data.

35. A method according to claim 21 wherein said order is a television initiated order.

36. A method according to claim 35, wherein at least certain of the data relating to the order entered by said callers is coded data displayed on the television.

37. A method according to claim 21, wherein the customer number data provided by the callers is associated with a limit restricting use of the service to an extent of a dollar value.

38. A method according to claim 21, wherein the customer number data provided by the callers is associated with a limit restricting use of the service up to a certain number of uses.

39. A method according to claim 21, wherein the customer number data provided by the callers is associated with a limit restricting use of the service to a limited period of time.

40. A method according to claim 21, further comprising the step of:

controlling inventory of items with certain order data.

US 6,292,547 B1

25

41. A method according to claim 40, wherein the controlling step controls the inventory of items on-line.

42. A method according to claim 21 wherein the verifying step further comprises the step of:

verifying the customer number data provided by the callers against a list of negative customer numbers.

43. A method according to claim 21 wherein said other form of identification data is social security number data.

44. A method according to claim 21 wherein said other form of identification data is PIN data.

45. A method according to claim 21 wherein the callers order multiple items during the course of a call.

46. A method according to claim 45, wherein the facility operating the service is a mail order house.

26

47. A method according to claim 21, wherein the data identifying the order identifies the order for a facility operating the service.

48. A method according to claim 21, wherein the additional data provided by the callers includes the size of the item.

49. A method according to claim 21, wherein the additional data provided by the caller includes the color of the item.

50. A method according to claim 21, wherein the additional data provided by the caller includes the size and color of the item.

* * * * *

EXHIBIT 3

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

RONALD A. KATZ TECHNOLOGY
LICENSING, L.P.,

Plaintiff,

v.

C.A. No. 07cv361 (GMS)

COMCAST CORPORATION; COMCAST CABLE COMMUNICATIONS, LLC; COMCAST OF NEW CASTLE COUNTY, LLC; COMCAST OF DELMARVA, INC.; COMCAST OF EASTERN SHORE, LLC; COMCAST OF CALIFORNIA II, LLC; COMCAST OF CALIFORNIA/COLORADO, LLC; COMCAST OF ARKANSAS/FLORIDA/LOUISIANA/MINNESOTA/MISSISSIPPI/TENNESSEE, INC.; COMCAST OF COLORADO/PENNSYLVANIA/WEST VIRGINIA, LLC; COMCAST OF FLORIDA/ILLINOIS/MICHIGAN, INC.; COMCAST OF GARDEN STATE, L.P.; COMCAST OF HOUSTON, LLC; GEICO CORPORATION; GOVERNMENT EMPLOYEES INSURANCE COMPANY; GEICO GENERAL INSURANCE COMPANY; GEICO INDEMNITY COMPANY; GEICO CASUALTY COMPANY; XM SATELLITE RADIO HOLDINGS INC.; XM SATELLITE RADIO, INC.; XM RADIO, INC.; XM EQUIPMENT LEASING, LLC;

Defendants.

DEMAND FOR JURY TRIAL

**PLAINTIFF RONALD A. KATZ TECHNOLOGY LICENSING, L.P.'S
AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Ronald A. Katz Technology Licensing, L.P. (“Katz Technology Licensing”), states as follows for its amended complaint against Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/

Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of Garden State, L.P., Comcast of Houston, LLC, GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company, XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC:

THE PARTIES

1. Plaintiff Katz Technology Licensing is a California limited partnership with its principal place of business at 9220 Sunset Boulevard, Suite 315, Los Angeles, California 90069.

2. On information and belief, Defendant Comcast Corp. is a Pennsylvania corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102.

3. On information and belief, Defendant Comcast Cable Communications, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

4. On information and belief, Defendant Comcast of New Castle County, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102 and (b) a subsidiary of Comcast Corp.

5. On information and belief, Defendant Comcast of Delmarva, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

6. On information and belief, Defendant Comcast of Eastern Shore, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

7. On information and belief, Defendant Comcast of California II, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

8. On information and belief, Defendant Comcast of California/Colorado, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

9. On information and belief, Defendant Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

10. On information and belief, Defendant Comcast of Colorado/Pennsylvania/ West Virginia, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

11. On information and belief, Defendant Comcast of Florida/Illinois/ Michigan, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

12. On information and belief, Defendant Comcast of Garden State, L.P. is (a) a partnership organized under the laws of the State of Delaware with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

13. On information and belief, Defendant Comcast of Houston, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

14. On information and belief, Defendant GEICO Corporation is a Delaware corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076.

15. On information and belief, Defendant Government Employees Insurance Company is (a) a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

16. On information and belief, Defendant GEICO General Insurance Company is an Iowa corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

17. On information and belief, Defendant GEICO Indemnity Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

18. On information and belief, Defendant GEICO Casualty Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation. On information and belief, Defendant XM Satellite Radio Holdings, Inc., is a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002.

19. On information and belief, Defendant XM Satellite Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

20. On information and belief, Defendant XM Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

21. On information and belief, Defendant XM Equipment Leasing, LLC is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

JURISDICTION AND VENUE

22. This is an action arising under the patent laws of the United States, 35 U.S.C. sections 101 *et seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. sections 1331 and 1338(a).

23. Defendants Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of

Garden State, L.P., Comcast of Houston, LLC, (collectively, the “Comcast Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are organized under the laws of the State of Delaware and have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

24. Defendants GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company (collectively, the “GEICO” Defendants) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are Delaware corporations and/or have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

25. Defendants XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC (collectively, the “XM Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, they are Delaware corporations and have designated a registered agent in this district.

26. Venue is proper in this judicial district under 28 U.S.C. sections 1391(c) and 1400(b) because the Defendants are incorporated, reside, have designated a registered agent in, and/or engage in significant business activities in this district as set forth in Paragraphs 23-25 above.

BACKGROUND

27. Ronald A. Katz (“Mr. Katz”), founder of Katz Technology Licensing, is the sole inventor of each of the patents-in-suit. Mr. Katz has been widely recognized as one of the most

prolific and successful inventors of our time, and his inventions over the last forty-plus years have been utilized by literally millions of people.

28. In 1961, Mr. Katz co-founded Telecredit Inc. ("Telecredit"), the first company to provide online, real-time credit authorization, allowing merchants to verify checks over the telephone. Further innovations from Telecredit include the first online, real-time, point-of-sale credit verification terminal, which enabled merchants to verify checks without requiring the assistance of a live operator, and the first device that used and updated magnetically-encoded cards in automated teller machines. Multiple patents issued from these innovations, including patents co-invented by Mr. Katz.

29. Telecredit was eventually acquired by Equifax, and has now been spun off as Certegy, a public company traded on the New York Stock Exchange. Certegy continues to provide services in the credit and check verification field established by Mr. Katz and Telecredit.

30. Mr. Katz's inventions have not been limited to telephonic check verification. Indeed, Mr. Katz is responsible for advancements in many fields of technology. Among his most prominent and well-known innovations are those in the field of interactive call processing. Mr. Katz's inventions in that field are directed to the integration of telephonic systems with computer databases and live operator call centers to provide interactive call processing services.

31. The first of Mr. Katz's interactive call processing patents issued on December 20, 1988. More than fifty U.S. patents have issued to Mr. Katz for his inventions in the interactive call-processing field, including each of the patents-in-suit.

32. In 1988, Mr. Katz partnered with American Express to establish FDR Interactive Technologies, later renamed Call Interactive, to provide interactive call processing services based on Mr. Katz's inventions. The American Express business unit involved in this joint venture later became known as First Data.

33. Early clients of Call Interactive included *The New York Times*, ABC's *Monday Night Football*, KABC Radio, CBS News, and Beatrice Foods (Hunt-Wesson division).

34. Many of these clients utilized Call Interactive technology for high-profile events. For example, CBS News hired Call Interactive to operate an interactive, real-time telephone poll to gauge viewer reaction to President George H.W. Bush's 1992 State of the Union address.

35. Mr. Katz sold his interest in Call Interactive to American Express in 1989 but continued to provide advisory services to Call Interactive until 1992. American Express later spun off the First Data business unit into a separate corporation, and with that new entity went Mr. Katz's interactive call processing patents and the Call Interactive call processing business. The former Call Interactive, now known as First Data Voice Services, continues to provide call processing solutions today.

36. In 1994, Mr. Katz formed Katz Technology Licensing, which acquired the rights to the entire interactive call processing patent portfolio, including the rights to each of the patents-in-suit, from First Data, the owner of all of the Katz interactive call processing patents at that time.

37. The marketplace has clearly recognized the value of Mr. Katz's inventions. Indeed, over one hundred fifty companies have licensed the patents-in-suit. Licensees include IBM, Hewlett-Packard, Bank of America, JPMorgan Chase, Wells Fargo, HSBC, Verizon, Sprint, Microsoft, Delta Airlines, Merck, Sears, Citibank, and the Home Shopping Network. These licensees and others acknowledge the applicability of the patents-in-suit to multiple fields of use, including but not limited to financial services call processing, automated securities transactions, automated credit card authorization services, automated wireless telecommunication services and support, automated health care services, and product and service support.

38. Each of the defendants employs the inventions of certain of the patents-in-suit. Katz Technology Licensing, through its licensing arm A2D, L.P., has repeatedly attempted to engage each defendant in licensing negotiations, but to date, none of the defendants has agreed to take a license to any of the patents-in-suit.

THE ASSERTED PATENTS

39. On December 20, 1988, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,792,968 (the “‘968 Patent”) to Ronald A. Katz for an invention entitled “Statistical Analysis System for Use With Public Communication Facility.” The ‘968 Patent expired on December 20, 2005.

40. On May 29, 1990, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,930,150 (the “‘150 Patent”) to Ronald A. Katz for an invention entitled “Telephonic Interface Control System.” The ‘150 Patent expired on December 20, 2005.

41. On July 7, 1992, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,128,984 (the “‘984 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

42. On October 5, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,251,252 (the “‘252 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

43. On October 19, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,255,309 (the “‘309 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘309 Patent expired on December 20, 2005.

44. On September 27, 1994, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,351,285 (the “‘285 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘285 Patent expired on December 20, 2005.

45. On October 1, 1996, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,561,707 (the “‘707 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘707 Patent expired on December 20, 2005.

46. On November 4, 1997, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,684,863 (the “‘863 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘863 Patent expired on December 20, 2005.

47. On September 29, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,815,551 (the “‘551 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘551 Patent expired on December 20, 2005.

48. On October 27, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,828,734 (the “‘734 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

49. On November 10, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,835,576 (the “‘576 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Lottery Device.” The ‘576 Patent expired on July 10, 2005.

50. On April 27, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,898,762 (the “‘762 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘762 Patent expired on December 20, 2005.

51. On June 29, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,917,893 (the “‘893 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘893 Patent expired on December 20, 2005.

52. On October 26, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,974,120 (the “‘120 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

53. On March 7, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,035,021 (the “‘021 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘021 Patent expired on December 20, 2005.

54. On November 14, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,148,065 (the “‘065 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘065 Patent expired on July 10, 2005.

55. On September 18, 2001, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,292,547 (the “‘547 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘547 Patent expired on July 10, 2005.

56. On January 1, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,335,965 (the “‘965 Patent”) to Ronald A. Katz for an invention entitled “Voice-Data Telephonic Interface Control System.” The ‘965 Patent expired on December 20, 2005.

57. On February 19, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,349,134 (the “‘134 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘134 Patent expired on December 20, 2005.

58. On July 23, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,424,703 (the “‘703 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Lottery System.” The ‘703 Patent expired on July 10, 2005.

59. On August 13, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,434,223 (the “‘223 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.” The ‘223 Patent expired on July 10, 2005.

60. On January 28, 2003, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,512,415 (the “‘415 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Game Control System.” The ‘415 Patent expired on July 10, 2005.

61. On January 13, 2004, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,678,360 (the “‘360 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘360 Patent expired on July 10, 2005.

FIRST CLAIM
(Patent Infringement by the Comcast Defendants)

62. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

63. The Comcast Defendants provide digital cable, broadband Internet and digital phone services to subscribers throughout the United States.

64. On information and belief, the Comcast Defendants use infringing call processing systems to offer automated customer service, pay-per-view ordering, voicemail functions, and technical support to their customers. Using an automated system, in some instances in connection with operators, the Comcast Defendants allow their customers to access information about their accounts, access voicemail messages, make payments, transfer or discontinue service, order pay-per-view entertainment, and perform various other functions.

65. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the ‘021, ‘065, ‘120, ‘134, ‘150, ‘223, ‘252, ‘285, ‘309, ‘360, ‘415, ‘547, ‘551, ‘703, ‘707, ‘734, ‘762, ‘863, ‘893, ‘968, and ‘984 Patents.

66. On information and belief, in their automated operations described in Paragraph 64 (collectively, the “Accused Comcast Services”), the Comcast Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one

or more claims of the patents identified in Paragraph 65 of this Complaint by making, using, offering to sell, or selling the Accused Comcast Services.

67. On information and belief, the Comcast Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the '120, '252, '734, and '984 Patents by making, using, offering to sell, or selling the Accused Comcast Services.

68. The Comcast Defendants' infringement of the patents identified in Paragraph 65 of this Complaint has been and is willful.

69. The Comcast Defendants' infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

SECOND CLAIM
(Patent Infringement by the GEICO Defendants)

70. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

71. The GEICO Defendants provide insurance products and services throughout the United States.

72. On information and belief, the GEICO Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the GEICO Defendants allow their customers to access information about their policies, make payments, order new identification cards, establish or change their personal identification numbers, verify insurance coverage, and perform various other functions.

73. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the '065, '120, '134, '150, '223, '252, '285, '360, '547, '551, '576, '703, '707, '734, '863, '893, '965, '968 and '984 Patents.

74. On information and belief, in their automated customer service operations described in Paragraph 72 (collectively, the “Accused GEICO Services”), the GEICO Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph 73 of this Complaint by making, using, offering to sell, or selling the Accused GEICO Services.

75. On information and belief, the GEICO Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the ‘120, ‘252, ‘734 and ‘984 Patents by making, using, offering to sell, or selling the Accused GEICO Services.

76. The GEICO Defendants’ infringement of the patents identified in Paragraph 73 of this Complaint has been and is willful.

77. The GEICO Defendants’ infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

THIRD CLAIM
(Patent Infringement by the XM Defendants)

78. Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-61 of this Complaint as if fully set forth herein.

79. The XM Defendants provide satellite radio subscription services.

80. On information and belief, the XM Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the XM Defendants allow their customers to access account information, sign up for new service, activate a radio, send a radio activation signal, make a payment for an account, manage an account, access technical support, and perform various other functions.

81. Katz Technology Licensing is the sole holder of the entire right, title, and interest in the '065, '120, '134, '150, '223, '252, '285, '360, '551, '703, '707, '734, '762, '863, '893, '965, and '984 Patents.

82. On information and belief, in their automated customer service operations described in Paragraph 80 (collectively, the "Accused XM Services"), the XM Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph 81 of this Complaint by making, using, offering to sell, or selling the Accused XM Services.

83. On information and belief, the XM Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the '120, '252, '734 and '984 Patents by making, using, offering to sell, or selling the Accused XM Services.

84. The XM Defendants' infringement of the patents identified in Paragraph 81 of this Complaint has been and is willful.

85. The XM Defendants' infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Ronald A. Katz Technology Licensing, L.P., respectfully requests that this Court enter judgment in its favor and against the defendants and grant the following relief:

1. Adjudge that the Comcast Defendants have been and are infringing one or more claims of the patents identified in Paragraph 65 of this Complaint by offering the Accused Comcast Services;
2. Adjudge that the Comcast Defendants' infringement has been and is willful;

3. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the Comcast Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

4. Order an accounting for damages resulting from the Comcast Defendants' infringement of the patents identified in Paragraph 65 of this Complaint.

5. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the Comcast Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

6. Enter an order, pursuant to 35 U.S.C. § 284, and based on the Comcast Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the Comcast Defendants;

7. Adjudge that the GEICO Defendants have been and are infringing one or more claims of the patents identified in Paragraph 73 of this Complaint by offering the Accused GEICO Services;

8. Adjudge that the GEICO Defendants' infringement has been and is willful;

9. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the GEICO Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734 and '984 Patents;

10. Order an accounting for damages resulting from the GEICO Defendants' infringement of the patents identified in Paragraph 73 of this Complaint;

11. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the GEICO

Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

12. Enter an order, pursuant to 35 U.S.C. § 284, and based on the GEICO Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the GEICO Defendants;

13. Adjudge that the XM Defendants have been and are infringing one or more claims of the patents identified in Paragraph 81 of this Complaint by offering the Accused XM Services;

14. Adjudge that the XM Defendants' infringement has been and is willful;

15. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the XM Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

16. Order an accounting for damages resulting from the XM Defendants' infringement of the patents identified in Paragraph 81 of this Complaint;

17. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the XM Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

18. Enter an order, pursuant to 35 U.S.C. § 284, and based on the XM Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the XM Defendants;

19. Enter an order, pursuant to 35 U.S.C. § 285, finding that this is an exceptional case and awarding to Katz Technology Licensing its reasonable attorneys' fees incurred in this action; and


20. Award such other relief as the Court may deem appropriate and just under the circumstances.

JURY DEMAND

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and the Seventh Amendment to the Constitution of the United States, Plaintiff demands a trial by jury of all claims and all issues triable as of right by jury in this action.

BOUCHARD MARGULES &
FRIEDLANDER, P.A.

BY


Andre G. Bouchard (I.D. No. 2504)
John M. Seaman (I.D. No. 3863)
222 Delaware Avenue, Suite 1400
Wilmington, DE 19801
Telephone: 302.573.3500
abouchard@bmf-law.com
jseaman@bmf-law.com

OF COUNSEL:

Attorneys for Plaintiff
Ronald A. Katz Technology Licensing, L.P.

Robert T. Haslam
Andrew C. Byrnes
HELLER EHRMAN LLP
275 Middlefield Road
Menlo Park, CA 94025-3506
650.324.7000

Michael K. Plimack
Dale A. Rice
HELLER EHRMAN LLP
333 Bush Street
San Francisco, CA 94104-2878
415.772.6000

Dated: August 6, 2007

EXHIBIT 2

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

RONALD A. KATZ TECHNOLOGY
LICENSING, L.P.,

Plaintiff,

v.

COMCAST CORPORATION; COMCAST CABLE
COMMUNICATIONS, LLC; COMCAST OF NEW
CASTLE COUNTY, LLC; COMCAST OF
DELMARVA, INC.; COMCAST OF EASTERN
SHORE, LLC; COMCAST OF CALIFORNIA II,
LLC; COMCAST OF CALIFORNIA/COLORADO,
LLC; COMCAST OF ARKANSAS/FLORIDA/
LOUISIANA/MINNESOTA/MISSISSIPPI/
TENNESSEE, INC.; COMCAST OF COLORADO/
PENNSYLVANIA/WEST VIRGINIA, LLC;
COMCAST OF FLORIDA/ILLINOIS/MICHIGAN,
INC.; COMCAST OF GARDEN STATE, L.P.;
COMCAST OF HOUSTON, LLC; ~~GEICO~~GEICO
CORPORATION; GOVERNMENT EMPLOYEES
INSURANCE COMPANY; ~~GEICO~~GEICO
GENERAL INSURANCE COMPANY; GEICO
INDEMNITY COMPANY; GEICO CASUALTY
COMPANY; XM SATELLITE RADIO HOLDINGS
INC.; XM SATELLITE RADIO, INC.; XM RADIO,
INC.; XM EQUIPMENT LEASING, LLC;

Defendants.

C.A. No. 07cv361 (GMS)

DEMAND FOR JURY TRIAL

**PLAINTIFF RONALD A. KATZ TECHNOLOGY LICENSING, L.P.'S
AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Ronald A. Katz Technology Licensing, L.P. ("Katz Technology Licensing"), states as follows for its amended complaint against Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/

Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of Garden State, L.P., Comcast of Houston, LLC, GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company, XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC:

THE PARTIES

1. Plaintiff Katz Technology Licensing is a California limited partnership with its principal place of business at 9220 Sunset Boulevard, Suite 315, Los Angeles, California 90069.
2. On information and belief, Defendant Comcast Corp. is a Pennsylvania corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102.
3. On information and belief, Defendant Comcast Cable Communications, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.
4. On information and belief, Defendant Comcast of New Castle County, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102 and (b) a subsidiary of Comcast Corp.
5. On information and belief, Defendant Comcast of Delmarva, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.
6. On information and belief, Defendant Comcast of Eastern Shore, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.
7. On information and belief, Defendant Comcast of California II, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

8. On information and belief, Defendant Comcast of California/Colorado, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

9. On information and belief, Defendant Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

10. On information and belief, Defendant Comcast of Colorado/Pennsylvania/ West Virginia, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

11. On information and belief, Defendant Comcast of Florida/Illinois/ Michigan, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

12. On information and belief, Defendant Comcast of Garden State, L.P. is (a) a partnership organized under the laws of the State of Delaware with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

13. On information and belief, Defendant Comcast of Houston, LLC is (a) a Delaware corporation with its principal place of business at 1500 Market Street, Philadelphia, Pennsylvania 19102, and (b) a subsidiary of Comcast Corp.

14. On information and belief, Defendant GEICO Corporation is a Delaware corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076.

15. On information and belief, Defendant Government Employees Insurance Company is (a) a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

16. On information and belief, Defendant GEICO General Insurance Company is an Iowa corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

17. On information and belief, Defendant GEICO Indemnity Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation.

18. On information and belief, Defendant GEICO Casualty Company is a Maryland corporation with its principal place of business at 1 GEICO Plaza, Washington, D.C. 20076, and (b) a subsidiary of GEICO Corporation. On information and belief, Defendant XM Satellite Radio Holdings, Inc., is a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002.

19. On information and belief, Defendant XM Satellite Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

20. On information and belief, Defendant XM Radio, Inc. is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

21. On information and belief, Defendant XM Equipment Leasing, LLC is (a) a Delaware corporation with its principal place of business at 1500 Eckington Place NE, Washington, D.C. 20002, and (b) a subsidiary of XM Satellite Radio Holdings, Inc.

JURISDICTION AND VENUE

22. This is an action arising under the patent laws of the United States, 35 U.S.C. sections 101 *et seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. sections 1331 and 1338(a).

23. Defendants Comcast Corporation, Comcast Cable Communications, LLC, Comcast of New Castle County, LLC, Comcast of Delmarva, Inc., Comcast of Eastern Shore, LLC, Comcast of California II, LLC, Comcast of California/Colorado, LLC, Comcast of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc., Comcast of Colorado/Pennsylvania/West Virginia, LLC, Comcast of Florida/Illinois/Michigan, Inc., Comcast of

Garden State, L.P., Comcast of Houston, LLC, (collectively, the “Comcast Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are organized under the laws of the State of Delaware and have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

24. Defendants GEICO Corporation, Government Employees Insurance Company, GEICO General Insurance Company, GEICO Indemnity Company, GEICO Casualty Company (collectively, the “GEICO” Defendants) are subject to this Court’s personal jurisdiction because, on information and belief, (1) they are Delaware corporations and/or have designated a registered agent in this district; (2) they do substantial business in this district; (3) they operate infringing automated call processing systems that are available to their customers, including customers in this district; and/or (4) they regularly solicit business from, do business with, and derive revenue from goods and services provided to, customers in this district.

25. Defendants XM Satellite Radio Holdings, Inc., XM Satellite Radio, Inc., XM Radio, Inc., and XM Equipment Leasing, LLC (collectively, the “XM Defendants”) are subject to this Court’s personal jurisdiction because, on information and belief, they are Delaware corporations and have designated a registered agent in this district.

26. Venue is proper in this judicial district under 28 U.S.C. sections 1391(c) and 1400(b) because the Defendants are incorporated, reside, have designated a registered agent in, and/or engage in significant business activities in this district as set forth in Paragraphs 23-25 above.

BACKGROUND

27. Ronald A. Katz (“Mr. Katz”), founder of Katz Technology Licensing, is the sole inventor of each of the patents-in-suit. Mr. Katz has been widely recognized as one of the most

prolific and successful inventors of our time, and his inventions over the last forty-plus years have been utilized by literally millions of people.

28. In 1961, Mr. Katz co-founded Telecredit Inc. ("Telecredit"), the first company to provide online, real-time credit authorization, allowing merchants to verify checks over the telephone. Further innovations from Telecredit include the first online, real-time, point-of-sale credit verification terminal, which enabled merchants to verify checks without requiring the assistance of a live operator, and the first device that used and updated magnetically-encoded cards in automated teller machines. Multiple patents issued from these innovations, including patents co-invented by Mr. Katz.

29. Telecredit was eventually acquired by Equifax, and has now been spun off as Certegy, a public company traded on the New York Stock Exchange. Certegy continues to provide services in the credit and check verification field established by Mr. Katz and Telecredit.

30. Mr. Katz's inventions have not been limited to telephonic check verification. Indeed, Mr. Katz is responsible for advancements in many fields of technology. Among his most prominent and well-known innovations are those in the field of interactive call processing. Mr. Katz's inventions in that field are directed to the integration of telephonic systems with computer databases and live operator call centers to provide interactive call processing services.

31. The first of Mr. Katz's interactive call processing patents issued on December 20, 1988. More than fifty U.S. patents have issued to Mr. Katz for his inventions in the interactive call-processing field, including each of the patents-in-suit.

32. In 1988, Mr. Katz partnered with American Express to establish FDR Interactive Technologies, later renamed Call Interactive, to provide interactive call processing services based on Mr. Katz's inventions. The American Express business unit involved in this joint venture later became known as First Data.

33. Early clients of Call Interactive included *The New York Times*, ABC's *Monday Night Football*, KABC Radio, CBS News, and Beatrice Foods (Hunt-Wesson division).

34. Many of these clients utilized Call Interactive technology for high-profile events. For example, CBS News hired Call Interactive to operate an interactive, real-time telephone poll to gauge viewer reaction to President George H.W. Bush's 1992 State of the Union address.

35. Mr. Katz sold his interest in Call Interactive to American Express in 1989 but continued to provide advisory services to Call Interactive until 1992. American Express later spun off the First Data business unit into a separate corporation, and with that new entity went Mr. Katz's interactive call processing patents and the Call Interactive call processing business. The former Call Interactive, now known as First Data Voice Services, continues to provide call processing solutions today.

36. In 1994, Mr. Katz formed Katz Technology Licensing, which acquired the rights to the entire interactive call processing patent portfolio, including the rights to each of the patents-in-suit, from First Data, the owner of all of the Katz interactive call processing patents at that time.

37. The marketplace has clearly recognized the value of Mr. Katz's inventions. Indeed, over one hundred fifty companies have licensed the patents-in-suit. Licensees include IBM, Hewlett-Packard, Bank of America, JPMorgan Chase, Wells Fargo, HSBC, Verizon, Sprint, Microsoft, Delta Airlines, Merck, Sears, Citibank, and the Home Shopping Network. These licensees and others acknowledge the applicability of the patents-in-suit to multiple fields of use, including but not limited to financial services call processing, automated securities transactions, automated credit card authorization services, automated wireless telecommunication services and support, automated health care services, and product and service support.

38. Each of the defendants employs the inventions of certain of the patents-in-suit. Katz Technology Licensing, through its licensing arm A2D, L.P., has repeatedly attempted to engage each defendant in licensing negotiations, but to date, none of the defendants has agreed to take a license to any of the patents-in-suit.

THE ASSERTED PATENTS

39. On December 20, 1988, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,792,968 (the “‘968 Patent”) to Ronald A. Katz for an invention entitled “Statistical Analysis System for Use With Public Communication Facility.” The ‘968 Patent expired on December 20, 2005.

40. On May 29, 1990, the United States Patent and Trademark Office duly and legally issued United States Patent No. 4,930,150 (the “‘150 Patent”) to Ronald A. Katz for an invention entitled “Telephonic Interface Control System.” The ‘150 Patent expired on December 20, 2005.

41. On July 7, 1992, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,128,984 (the “‘984 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

42. On October 5, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,251,252 (the “‘252 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

43. On October 19, 1993, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,255,309 (the “‘309 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘309 Patent expired on December 20, 2005.

44. On September 27, 1994, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,351,285 (the “‘285 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘285 Patent expired on December 20, 2005.

45. On October 1, 1996, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,561,707 (the “‘707 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘707 Patent expired on December 20, 2005.

46. On November 4, 1997, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,684,863 (the “‘863 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘863 Patent expired on December 20, 2005.

47. On September 29, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,815,551 (the “‘551 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘551 Patent expired on December 20, 2005.

48. On October 27, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,828,734 (the “‘734 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

49. On November 10, 1998, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,835,576 (the “‘576 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Lottery Device.” The ‘576 Patent expired on July 10, 2005.

50. On April 27, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,898,762 (the “‘762 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘762 Patent expired on December 20, 2005.

51. On June 29, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,917,893 (the “‘893 Patent”) to Ronald A. Katz for an invention entitled “Multiple Format Telephonic Interface Control System.” The ‘893 Patent expired on December 20, 2005.

52. On October 26, 1999, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,974,120 (the “‘120 Patent”) to Ronald A. Katz for an invention entitled “Telephone Interface Call Processing System With Call Selectivity.”

53. On March 7, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,035,021 (the “‘021 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘021 Patent expired on December 20, 2005.

54. On November 14, 2000, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,148,065 (the “‘065 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘065 Patent expired on July 10, 2005.

55. On September 18, 2001, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,292,547 (the “‘547 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘547 Patent expired on July 10, 2005.

56. 55.—On January 1, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,335,965 (the “‘965 Patent”) to Ronald A. Katz for an invention entitled “Voice-Data Telephonic Interface Control System.” The ‘965 Patent expired on December 20, 2005.

57. 56.—On February 19, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,349,134 (the “‘134 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘134 Patent expired on December 20, 2005.

58. 57.—On July 23, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,424,703 (the “‘703 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Lottery System.” The ‘703 Patent expired on July 10, 2005.

59. 58.—On August 13, 2002, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,434,223 (the “‘223 Patent”) to Ronald A. Katz for an

invention entitled “Telephone Interface Call Processing System With Call Selectivity.” The ‘223 Patent expired on July 10, 2005.

60. 59.—On January 28, 2003, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,512,415 (the “‘415 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Game Control System.” The ‘415 Patent expired on July 10, 2005.

61. 60.—On January 13, 2004, the United States Patent and Trademark Office duly and legally issued United States Patent No. 6,678,360 (the “‘360 Patent”) to Ronald A. Katz for an invention entitled “Telephonic-Interface Statistical Analysis System.” The ‘360 Patent expired on July 10, 2005.

FIRST CLAIM
(Patent Infringement by the Comcast Defendants)

62. 61.—Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-~~60~~61 of this Complaint as if fully set forth herein.

63. 62.—The Comcast Defendants provide digital cable, broadband Internet and digital phone services to subscribers throughout the United States.

64. 63.—On information and belief, the Comcast Defendants use infringing call processing systems to offer automated customer service, pay-per-view ordering, voicemail functions, and technical support to their customers. Using an automated system, in some instances in connection with operators, the Comcast Defendants allow their customers to access information about their accounts, access voicemail messages, make payments, transfer or discontinue service, order pay-per-view entertainment, and perform various other functions.

65. 64.—Katz Technology Licensing is the sole holder of the entire right, title, and interest in the ‘021, ‘065, ‘120, ‘134, ‘150, ‘223, ‘252, ‘285, ‘309, ‘360, ‘415, ‘547, ‘551, ‘703, ‘707, ‘734, ‘762, ‘863, ‘893, ‘968, and ‘984 Patents.

~~66.~~ ~~65.~~—On information and belief, in their automated operations described in Paragraph ~~63~~64 (collectively, the “Accused Comcast Services”), the Comcast Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph ~~64~~65 of this Complaint by making, using, offering to sell, or selling the Accused Comcast Services.

~~67.~~ ~~66.~~—On information and belief, the Comcast Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the ‘120, ‘252, ‘734, and ‘984 Patents by making, using, offering to sell, or selling the Accused Comcast Services.

~~68.~~ ~~67.~~—The Comcast Defendants’ infringement of the patents identified in Paragraph ~~64~~65 of this Complaint has been and is willful.

~~69.~~ ~~68.~~—The Comcast Defendants’ infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

SECOND CLAIM
(Patent Infringement by the GEICO Defendants)

~~70.~~ ~~69.~~—Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-~~60~~61 of this Complaint as if fully set forth herein.

~~71.~~ ~~70.~~—The GEICO Defendants provide insurance products and services throughout the United States.

~~72.~~ ~~71.~~—On information and belief, the GEICO Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the GEICO Defendants allow their customers to access information about their policies, make payments, order new identification cards, establish or change their personal identification numbers, verify insurance coverage, and perform various other functions.

~~73.~~ ~~72.~~—Katz Technology Licensing is the sole holder of the entire right, title, and interest in the ‘065, ‘120, ‘134, ‘150, ‘223, ‘252, ‘285, ‘360, ‘547, ‘551, ‘576, ‘703, ‘707, ‘734, ‘863, ‘893, ‘965, ‘968 and ‘984 Patents.

~~74.~~ ~~73.~~—On information and belief, in their automated customer service operations described in Paragraph ~~74~~72 (collectively, the “Accused GEICO Services”), the GEICO Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph ~~72~~73 of this Complaint by making, using, offering to sell, or selling the Accused GEICO Services.

~~75.~~ ~~74.~~—On information and belief, the GEICO Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the ‘120, ‘252, ‘734 and ‘984 Patents by making, using, offering to sell, or selling the Accused GEICO Services.

~~76.~~ ~~75.~~—The GEICO Defendants’ infringement of the patents identified in Paragraph ~~72~~73 of this Complaint has been and is willful.

~~77.~~ ~~76.~~—The GEICO Defendants’ infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

THIRD CLAIM **(Patent Infringement by the XM Defendants)**

~~78.~~ ~~77.~~—Katz Technology Licensing realleges and incorporates by reference Paragraphs 1-~~60~~61 of this Complaint as if fully set forth herein.

~~79.~~ ~~78.~~—The XM Defendants provide satellite radio subscription services.

~~80.~~ ~~79.~~—On information and belief, the XM Defendants use infringing call processing systems to offer automated customer service to their customers. Using an automated system, in some instances in connection with operators, the XM Defendants allow their customers to access

account information, sign up for new service, activate a radio, send a radio activation signal, make a payment for an account, manage an account, access technical support, and perform various other functions.

81. ~~80.~~—Katz Technology Licensing is the sole holder of the entire right, title, and interest in the ‘065, ‘120, ‘134, ‘150, ‘223, ‘252, ‘285, ‘360, ‘551, ‘703, ‘707, ‘734, ‘762, ‘863, ‘893, ‘965, and ‘984 Patents.

82. ~~81.~~—On information and belief, in their automated customer service operations described in Paragraph ~~79~~80 (collectively, the “Accused XM Services”), the XM Defendants have been and are now infringing, actively inducing the infringement of, or contributing to the infringement of one or more claims of the patents identified in Paragraph ~~80~~81 of this Complaint by making, using, offering to sell, or selling the Accused XM Services.

83. ~~82.~~—On information and belief, the XM Defendants continue to infringe, actively induce the infringement of, and contribute to the infringement of one or more claims of the ‘120, ‘252, ‘734 and ‘984 Patents by making, using, offering to sell, or selling the Accused XM Services.

84. ~~83.~~—The XM Defendants’ infringement of the patents identified in Paragraph ~~80~~81 of this Complaint has been and is willful.

85. ~~84.~~—The XM Defendants’ infringement has caused and will continue to cause Katz Technology Licensing irreparable harm unless enjoined by this Court. Katz Technology Licensing has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Ronald A. Katz Technology Licensing, L.P., respectfully requests that this Court enter judgment in its favor and against the defendants and grant the following relief:

1. Adjudge that the Comcast Defendants have been and are infringing one or more claims of the patents identified in Paragraph 6465 of this Complaint by offering the Accused Comcast Services;

2. Adjudge that the Comcast Defendants' infringement has been and is willful;

3. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the Comcast Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

4. Order an accounting for damages resulting from the Comcast Defendants' infringement of the patents identified in Paragraph 6465 of this Complaint.

5. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the Comcast Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

6. Enter an order, pursuant to 35 U.S.C. § 284, and based on the Comcast Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the Comcast Defendants;

7. Adjudge that the GEICO Defendants have been and are infringing one or more claims of the patents identified in Paragraph 7273 of this Complaint by offering the Accused GEICO Services;

8. Adjudge that the GEICO Defendants' infringement has been and is willful;

9. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the GEICO Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734 and '984 Patents;

10. Order an accounting for damages resulting from the GEICO Defendants' infringement of the patents identified in Paragraph ~~72~~73 of this Complaint;

11. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the GEICO Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

12. Enter an order, pursuant to 35 U.S.C. § 284, and based on the GEICO Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the GEICO Defendants;

13. Adjudge that the XM Defendants have been and are infringing one or more claims of the patents identified in Paragraph ~~80~~81 of this Complaint by offering the Accused XM Services;

14. Adjudge that the XM Defendants' infringement has been and is willful;

15. Enter an order, pursuant to 35 U.S.C. § 283, temporarily, preliminarily, and permanently enjoining the XM Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement, or inducement of infringement of the '120, '252, '734, and '984 Patents;

16. Order an accounting for damages resulting from the XM Defendants' infringement of the patents identified in Paragraph ~~80~~81 of this Complaint;

17. Enter an order, pursuant to 35 U.S.C. § 284, awarding to Katz Technology Licensing damages adequate to compensate Katz Technology Licensing for the XM Defendants' infringement, but in no event less than a reasonable royalty, together with pre-judgment and post-judgment interest;

18. Enter an order, pursuant to 35 U.S.C. § 284, and based on the XM Defendants' willful infringement, trebling all damages awarded to Katz Technology Licensing and against the XM Defendants;

19. Enter an order, pursuant to 35 U.S.C. § 285, finding that this is an exceptional case and awarding to Katz Technology Licensing its reasonable attorneys' fees incurred in this action; and

20. Award such other relief as the Court may deem appropriate and just under the circumstances.

JURY DEMAND

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and the Seventh Amendment to the Constitution of the United States, Plaintiff demands a trial by jury of all claims and all issues triable as of right by jury in this action.

BOUCHARD MARGULES &
FRIEDLANDER, P.A.

By

Andre G. Bouchard (I.D. No. 2504)
John M. Seaman (I.D. No. 3863)
222 Delaware Avenue, Suite 1400
Wilmington, DE 19801
Telephone: 302.573.3500
abouchard@bmf-law.com
jseaman@bmf-law.com

OF COUNSEL:

Attorneys for Plaintiff
Ronald A. Katz Technology Licensing, L.P.

Robert T. Haslam
Andrew C. Byrnes
HELLER EHRMAN LLP
275 Middlefield Road
Menlo Park, CA 94025-3506
650.324.7000

Michael K. Plimack
Dale A. Rice
HELLER EHRMAN LLP
333 Bush Street
San Francisco, CA 94104-2878
415.772.6000

Dated: ~~June 1,~~ July, 2007